

INPUT

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## RESEARCH REPORT

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# Evaluation of Enterprise Application Solutions, U.S.





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# **Evaluation of Enterprise Application Solutions, U.S.**

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# Abstract

The enterprise application solutions market has grown rapidly in recent years and strong growth is expected to continue in this market up to the year 2000. However, the expectations from enterprise application implementation is changing and a new wave of solutions is replacing many of the established vendors in Europe.

The objectives of this study are to:

- Analyse current usage of enterprise application solutions and the platforms on which they are based
- Identify future buying patterns of solutions and platforms
- Identify the cost structure of enterprise application solution implementations
- Analyse levels of satisfaction with current enterprise application solutions
- Analyse awareness and perceived suitability of enterprise application solutions

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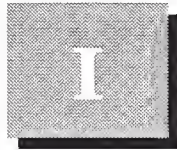
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# Introduction

## A

### Scope and Objectives

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The enterprise application solutions market has grown rapidly in recent years and strong growth is expected to continue in this market up to the Year 2000. However, expectations from enterprise application implementations are changing and a new wave of vendors is replacing many of the established vendors in the U.S.

The objectives of this study are to:

- Analyze current usage of enterprise application solutions and the platforms on which they are based
- Identify future buying patterns of solutions and platforms
- Identify the cost structure of enterprise application solution implementations
- Analyze levels of satisfaction with current enterprise application solutions
- Analyze awareness and perceived suitability of enterprise application solutions

**B****Methodology**

INPUT interviewed representatives of 60 organizations in the U.S. Thirty-five of these organizations planned to implement enterprise application solutions within the next two years. The remaining twenty-five organizations currently use enterprise application solutions but have no immediate replacement plans.

The breakdown of the overall sample by industry is shown in Exhibit I-1.

Exhibit I-1

**Sample Breakdown by Industry Sector**

Industry Sector	Proportion of sample (%)
Discrete Manufacturing	25
Process Manufacturing	23
Distribution	17
Banking	3
Insurance	12
Other	20

Source: INPUT

The breakdown of the overall sample by organization turnover is shown in Exhibit I-2.

Exhibit I-2

**Sample Breakdown by Company Size**

Turnover	Proportion of sample (%)
<\$100m	5
\$101m-\$200m	13
\$201m-\$500m	30
\$501m-\$1000m	16
\$1001m+	36

Source: INPUT



**C**

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**Report Structure**

Chapter II consists of the Executive Summary, which is a summary of the key conclusions and recommendations of the research, and identifies the main issues for buyers of enterprise application solutions.

Chapter III analyses existing enterprise application solution usage including current and planned usage of solutions, equipment platforms, operating systems and databases. It also evaluates implementation approaches, timescales and costs.

Chapter IV analyses satisfaction with enterprise application solutions including the achievement of benefits sought. It also analyses satisfaction with enterprise application solution implementation.

Chapter V evaluates the purchasing process for both solutions and services.

**D**

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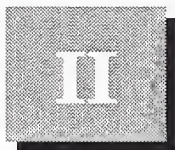
**Related Reports**

Other INPUT reports that address topics related to the subjects discussed here include the following:

*Evaluation of SAP Service Providers in the U.S.*

*Professional Services Market Forecast, U.S. 1997-2002*

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## Executive Summary

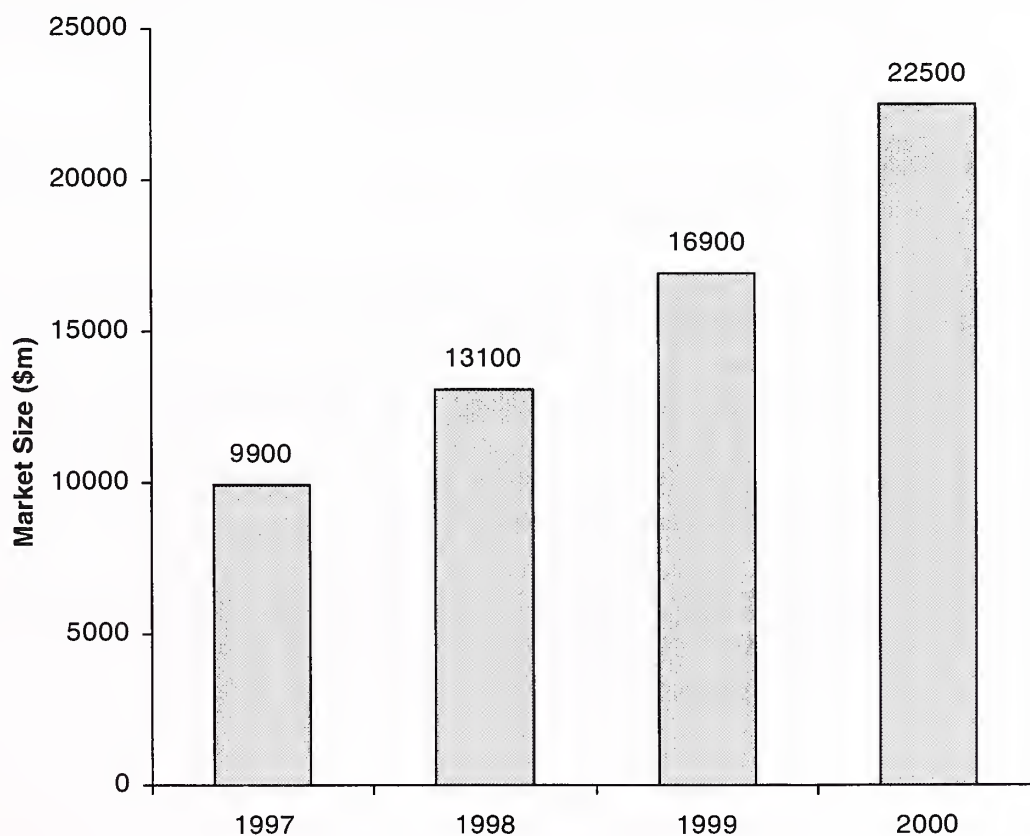
### A

#### Rapid Growth in EAS Services Market

Exhibit II-1 shows the growth in the enterprise application solutions professional services market in the U.S. up to the year 2000.

Exhibit II-1

#### U.S. Enterprise Application Professional Services Market, 1997-2000



Source: INPUT



The EAS related professional services market will continue to grow at approximately 30% per annum for the next two years, though rates may subsequently decline. The majority of organizations surveyed by INPUT in the U.S. are either replacing, or planning to replace, their enterprise application solution over the next two years.

There are a number of major reasons why this is taking place.

- Firstly, the market is being fuelled by the need of organizations to address the Y2K issues.
- Secondly, organizations are now beginning to address the need to adapt existing enterprise application solutions for electronic business via Internet/Intranet technology.
- Thirdly, the major enterprise application solution vendors are now moving into new industry sectors where their products have traditionally shown low levels of adoption.

In addition to these effects which are taking place in their traditional market segments, the enterprise application solution vendors are beginning to address the opportunities for their offerings in the SME sector, and are exploring new ways of offering their products to this market, such as via managed services.

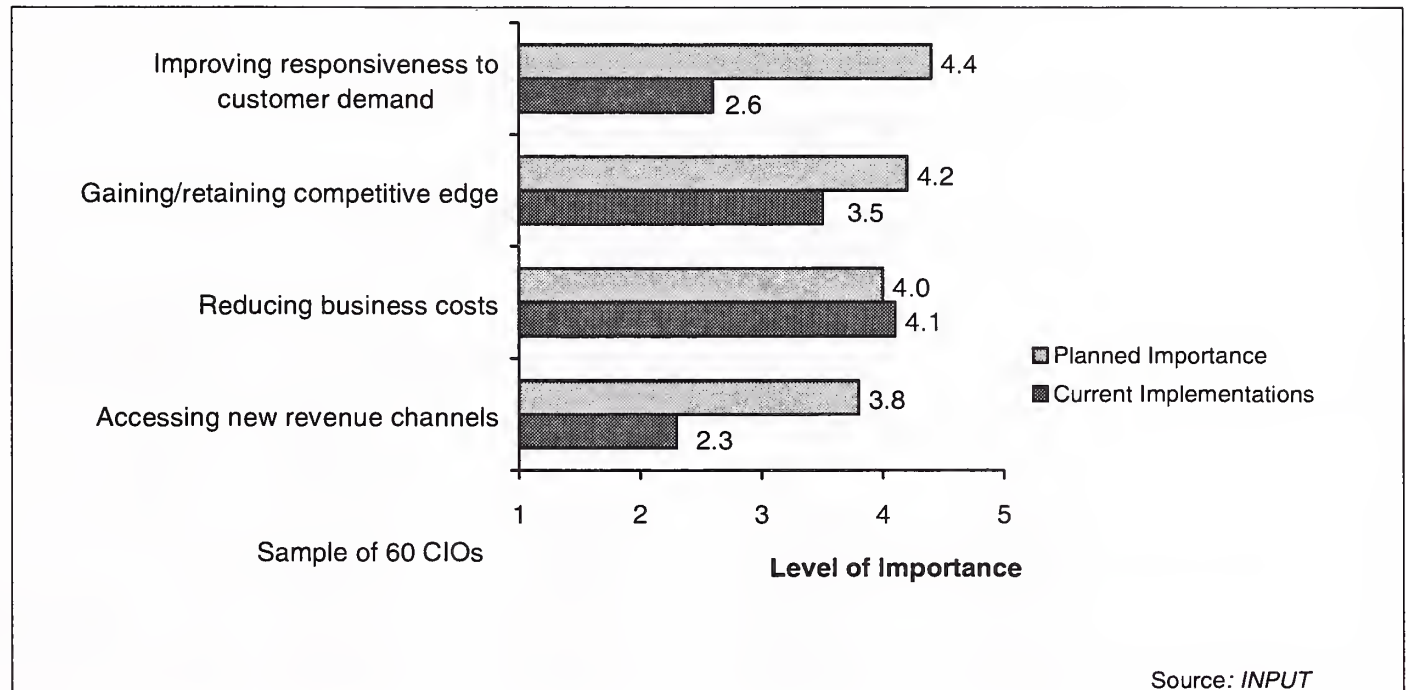
However, the use of enterprise application solutions is changing and buyers need to recognize:

- The increasing need to use enterprise application solutions to improve responsiveness to customer demand
- The need to ensure that implementation time and cost targets are met
- The need to integrate the principal enterprise application solution with other complementary applications
- The changing technology platforms underlying enterprise application solution implementations.

**B****Address Improved Responsiveness to Customer Demand**

Exhibit II-2 shows how the importance that buyers attach to a number of potential benefits is changing.

Exhibit II-2

**Benefits Sought from EAS Implementation**

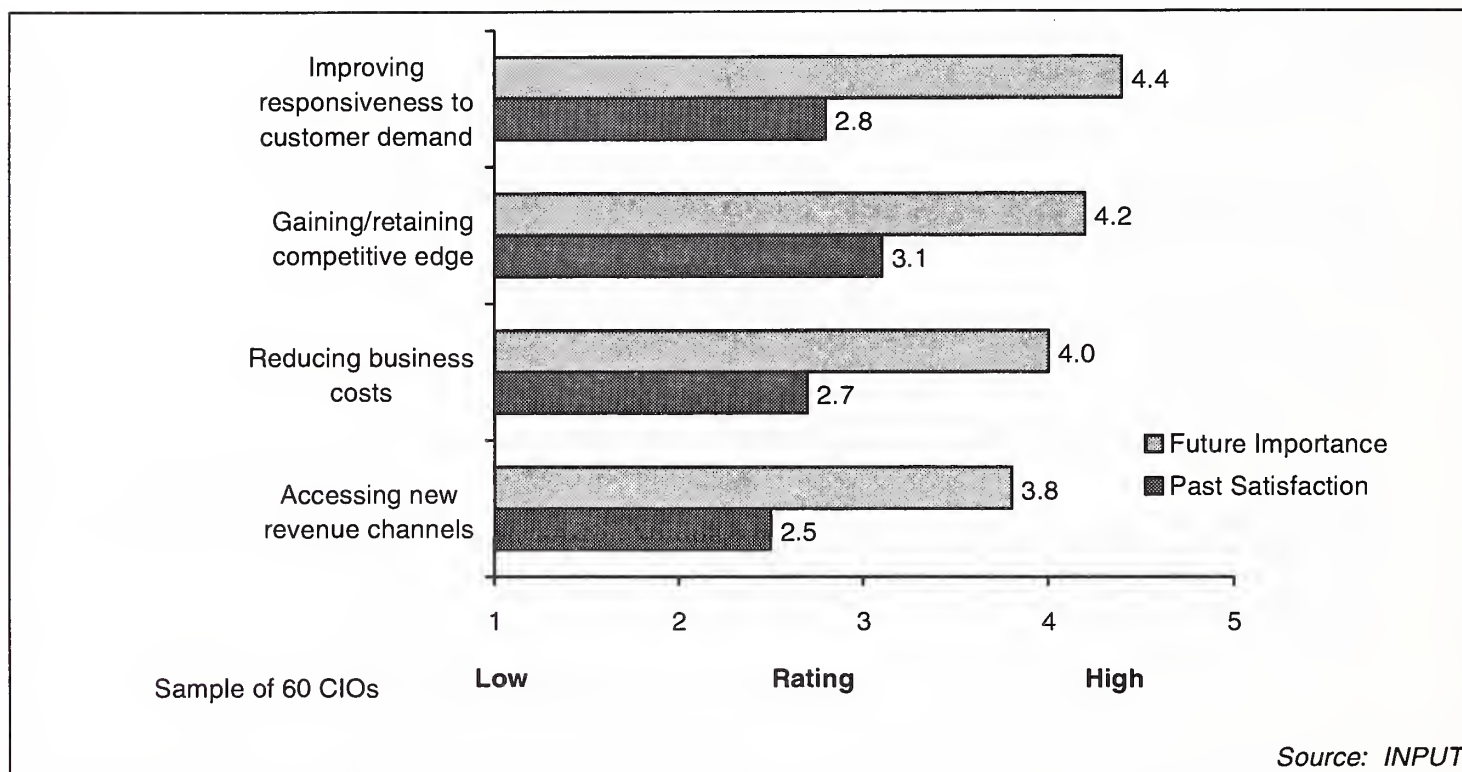
The emphasis on enterprise application solution implementation is now much more outward looking than previously. While past implementations tended to emphasize the reduction of business process costs, a much greater importance than in the past is now attached to improving customer service.

This change in emphasis requires buyers to seek new competencies from both solutions vendors and implementation services partners. The vendors need to be more outward facing than previously and address sales and marketing and distribution related functionality, rather than relying on materials and supplier management.

Exhibit II-3 shows the extent to which the most important benefits now sought from the implementation of enterprise application solutions were achieved in past implementations.

Exhibit II-3

### Level of Benefit Achievement



Traditionally, enterprise application solution implementations have been perceived as successful in addressing the Y2K issue. However, they have been perceived to be less successful in delivering business benefit.

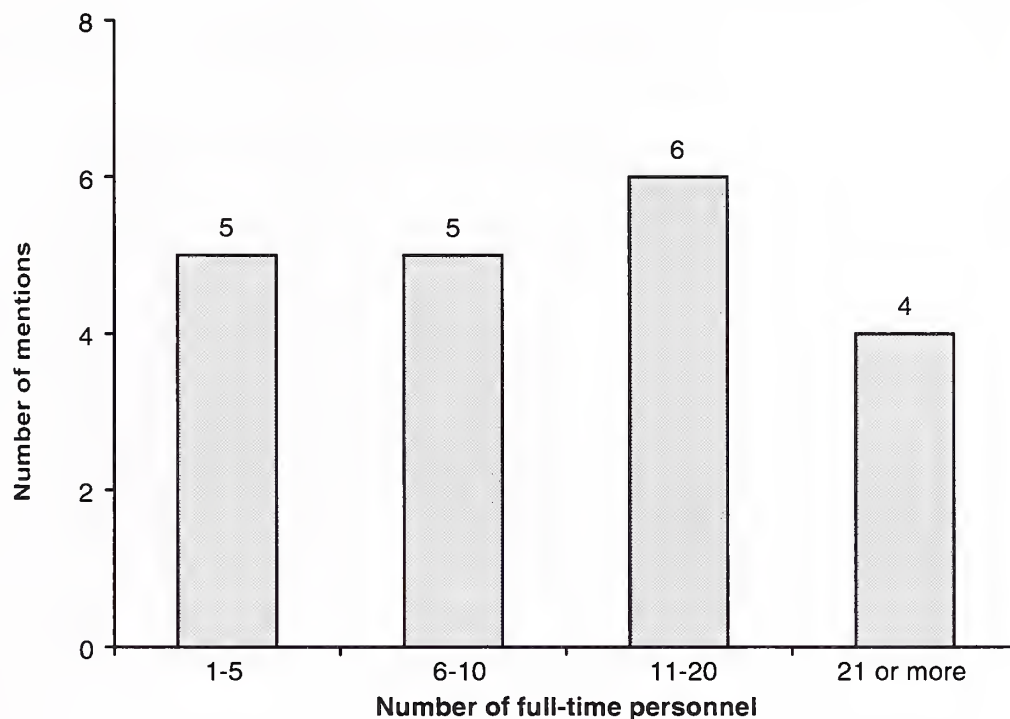
Buyers need to clarify the business objectives that they seek from future enterprise application solution implementations and ensure that they select and manage vendors with a view to realizing these benefits.



**C****Buyers Must Ensure that Budget Targets Are Met**

Exhibit II-4 shows the profile of number of full-time implementation personnel involved in prior enterprise application solution implementations.

Exhibit II-4

**Profile of Implementation Personnel Required**

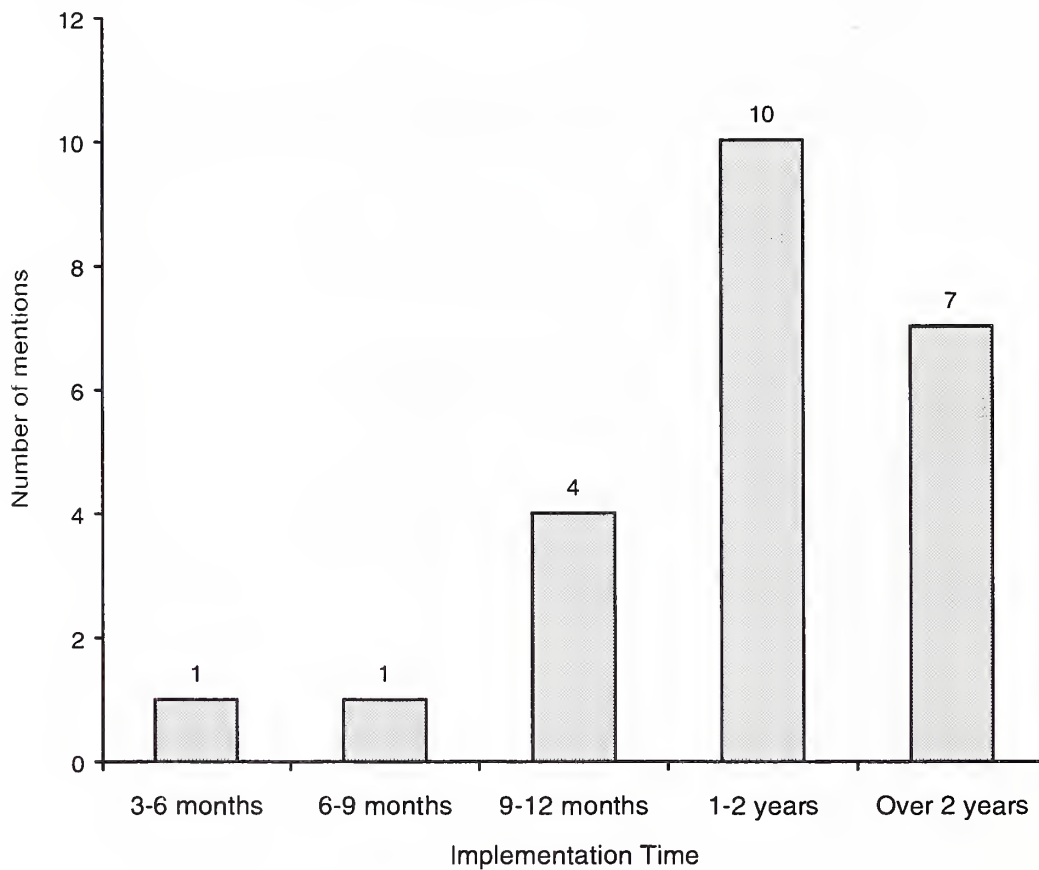
Source: INPUT

On average, organizations used twelve full-time personnel in implementing existing enterprise application solutions.

Exhibit II-5 shows the range of timescales taken to implement enterprise application solutions across an organization.

Exhibit II-5

### Profile of Implementation Timescales



Source: INPUT

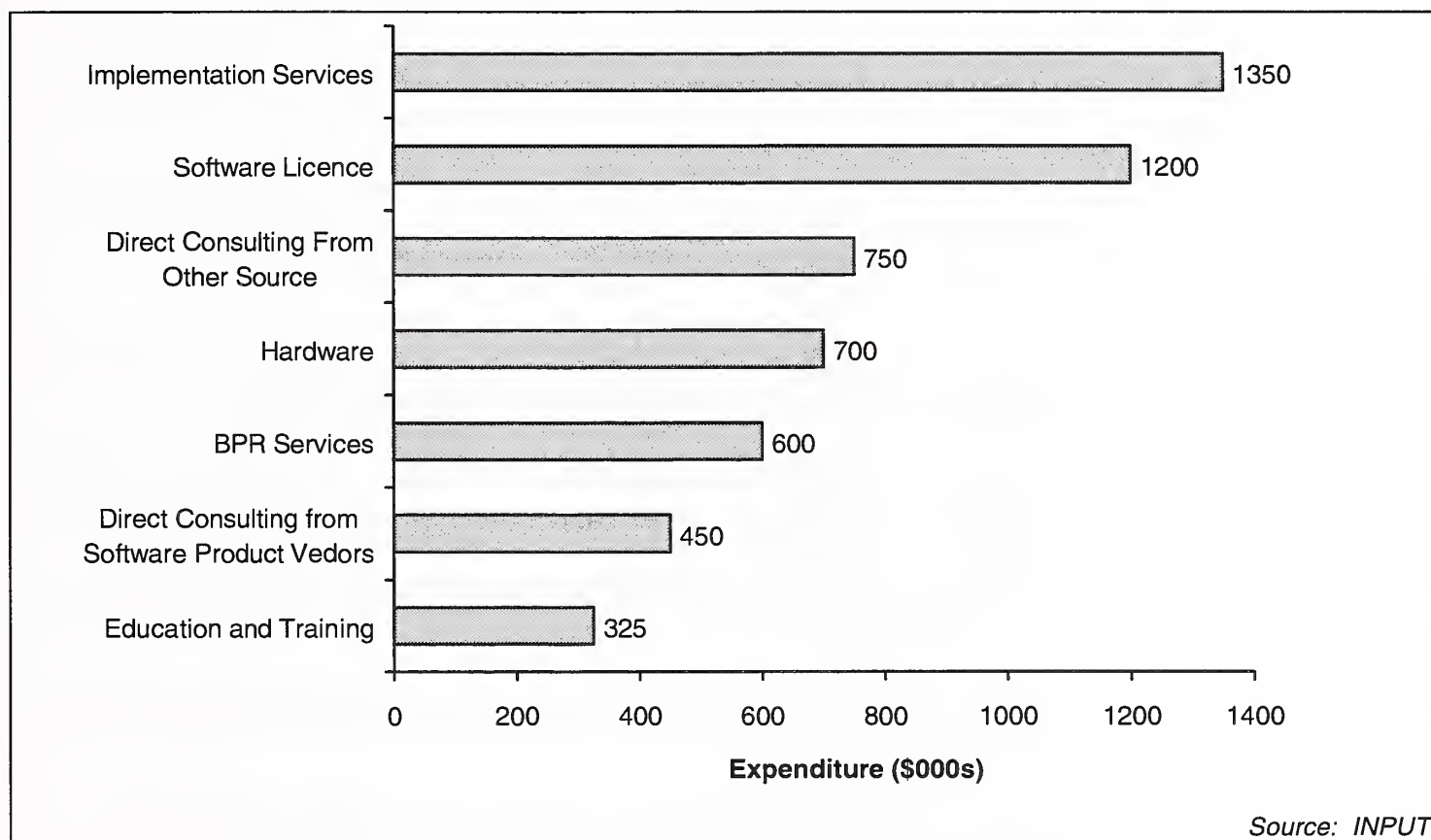
The average implementation time for a company-wide enterprise application solution is currently 19 months. Given the speed with which commercial environments currently change, there is much discussion of the need to reduce current implementation times and costs. In response, enterprise application solution vendors and their services partners have introduced a wide range of industry templates and methodologies which seek to lower implementation times. However, these do not yet appear to be fully effective, and buyers express relatively low levels of satisfaction with these tools.

The current expectation of buyers is that enterprise application solution implementation times will reduce slightly to an average of 16 months.

Exhibit II-6 shows the breakdown of expenditure incurred in the implementation of enterprise application solutions.

Exhibit II-6

### Breakdown of Implementation Expenditure



Cost performance on enterprise application solution implementation in the U.S. has been relatively poor in the past. Only 40% of implementations were achieved within budget or within 10% over budget. Thirty-five per cent of implementations exceeded plan by more than 25%.

Buyers should consider using contractual methods such as fixed pricing to assist them in meeting their budget targets. When selecting a services partner, buyers should be aware that the majority of enterprise application solution implementations fail to meet their deadlines and exceed their budgets.

Approximately a third of external implementation costs in the past have been incurred on equipment and software license costs, 50% of implementation costs being incurred on external services.

In the past, the level of satisfaction with the services partners performing these services has been low in a number of areas, namely:

- Their ability to meet deadlines and budget
- Their industry-specific knowledge
- Their ongoing support.

Buyers on average spend \$3m on external services in the course of an implementation. Accordingly, it is important that they are aware of these potential problem areas and select their services vendor accordingly.

Only 5% of project expenditure is typically incurred on training. Buyers should consider increasing this figure to improve the effectiveness of implementations and to reduce the need for ongoing support.

## D

### Integration With Complementary Products Remains Important

Existing users of enterprise application solutions were asked about their plans over the next two years. The major themes to emerge were:

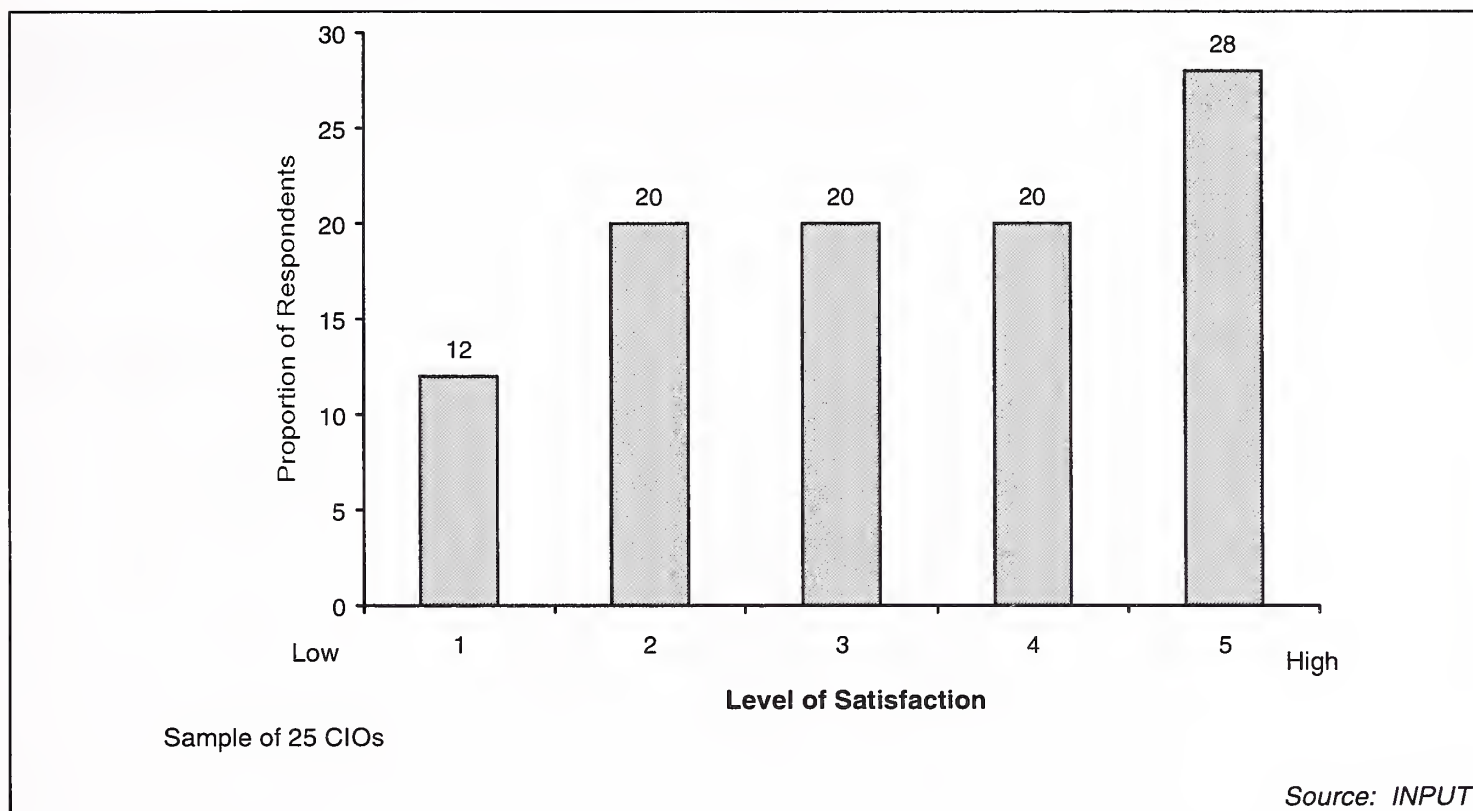
- The extension of current enterprise application solutions to additional functional areas
- The extension of functionality through use of additional “best of breed” applications.

At present, 50% of organizations currently use multiple best of breed products rather than a single enterprise application solution to meet their needs. This figure is expected to increase. Sixty five per cent of buyers intending to implement enterprise application solutions within the next two years intend to use multiple products. So the ability to integrate multiple applications will remain important to buyers over the next few years. However, there is scope for solutions vendors to improve the capabilities of their products in this respect. Accordingly, buyers should take this factor into account when selecting an enterprise application solution.

Exhibit II-7 shows the profile of buyer satisfaction with ability to integrate enterprise application solutions with complementary solutions.

Exhibit II-7

### Satisfaction with Ease of Integration with Other Products



Approximately a third of buyers are dissatisfied and another 20% only moderately satisfied.



Exhibit II-8 compares the level of awareness of a number of enterprise application solutions in the U.S. with the satisfaction of current users of these solutions.

Exhibit II-8

### Product Positioning: EAS Solutions

	High Satisfaction	Medium Satisfaction	Low Satisfaction
High Awareness	SAP Computer Associates	Oracle PeopleSoft	Walker
Medium Awareness	JD Edwards		SSA

Source: INPUT

Key strengths reported for SAP included:

- The high level of integration and similarity between modules
- Its ease of use
- Its ability to cope with change.

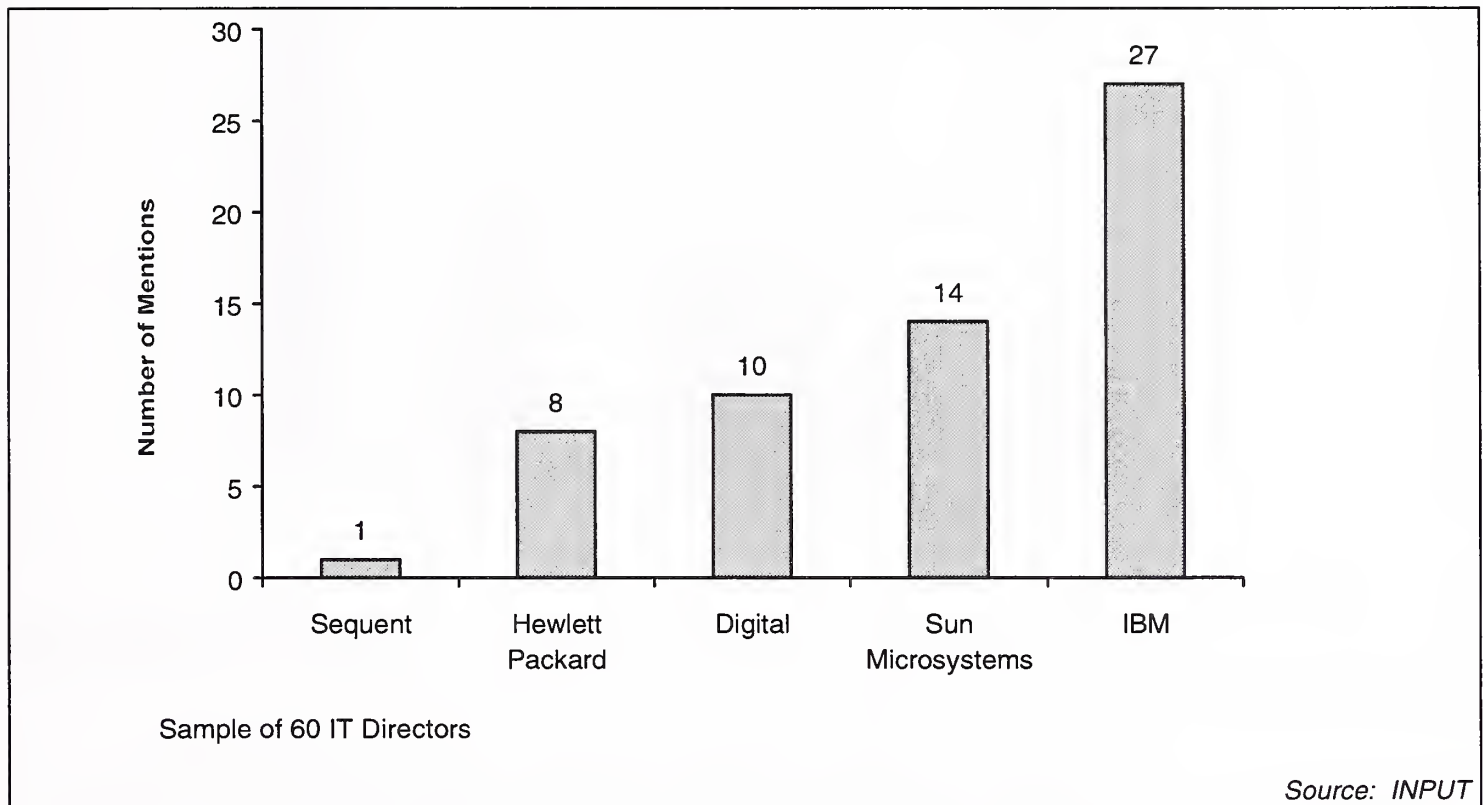
Weaknesses reported included:

- Its high resource usage
- Difficulty of implementation
- Its reporting capabilities.

**E****Oracle's Dominance Challenged by SQL Server**

Exhibit II-9 shows the profile of equipment platforms currently underlying enterprise application solutions in the U.S.

Exhibit II-9

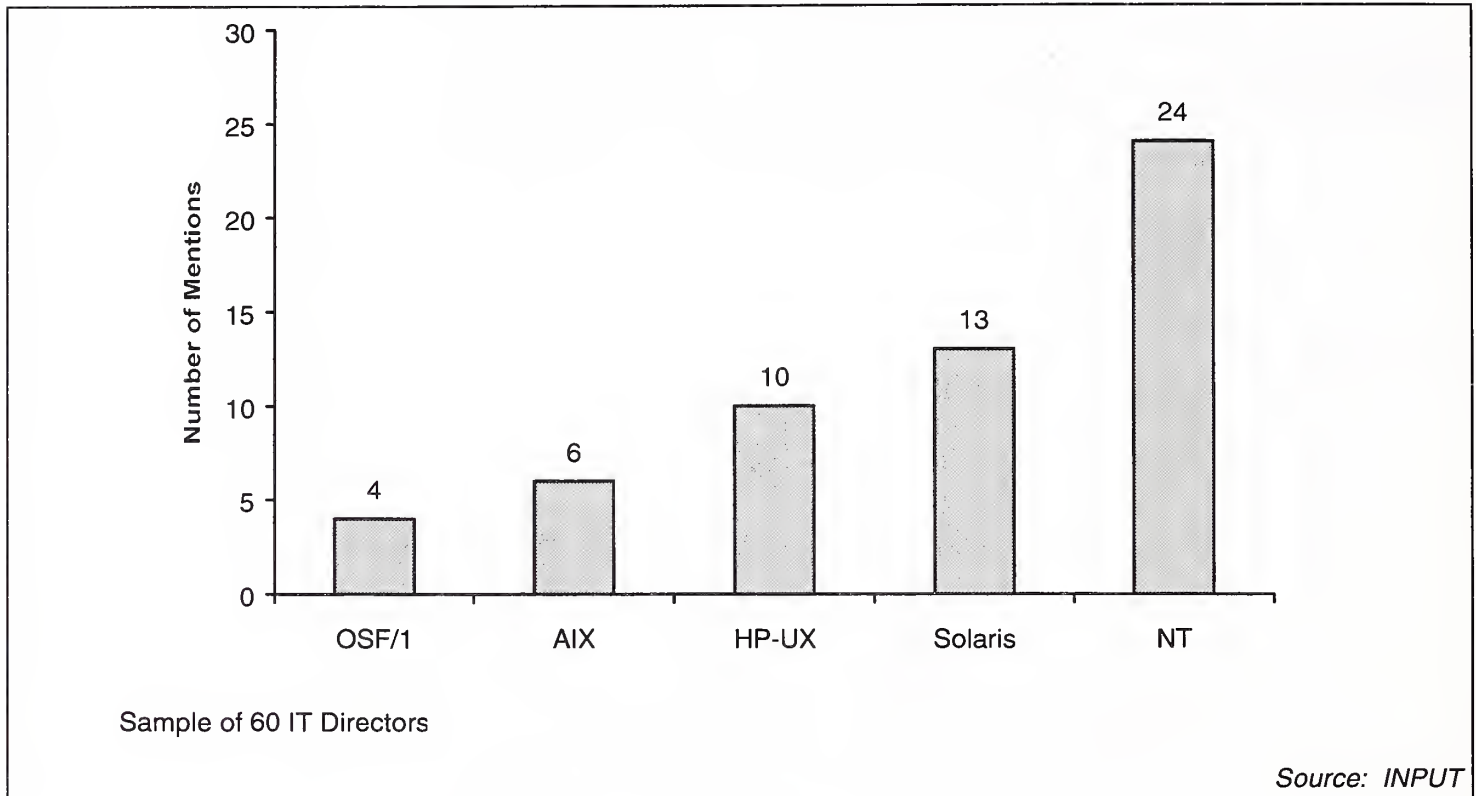
**Current Equipment Platform Usage**

On the basis of current buyer intentions, IBM is expected to maintain a strong position in this market over the next two years. However, the company will be increasingly challenged by Sun Microsystems and Hewlett-Packard, whose platforms are the favorites with potential purchasers of enterprise application solutions.

Exhibit II-10 shows the profile of operating systems currently underlying enterprise application solutions in the U.S.

Exhibit II-10

### Current Operating System Usage

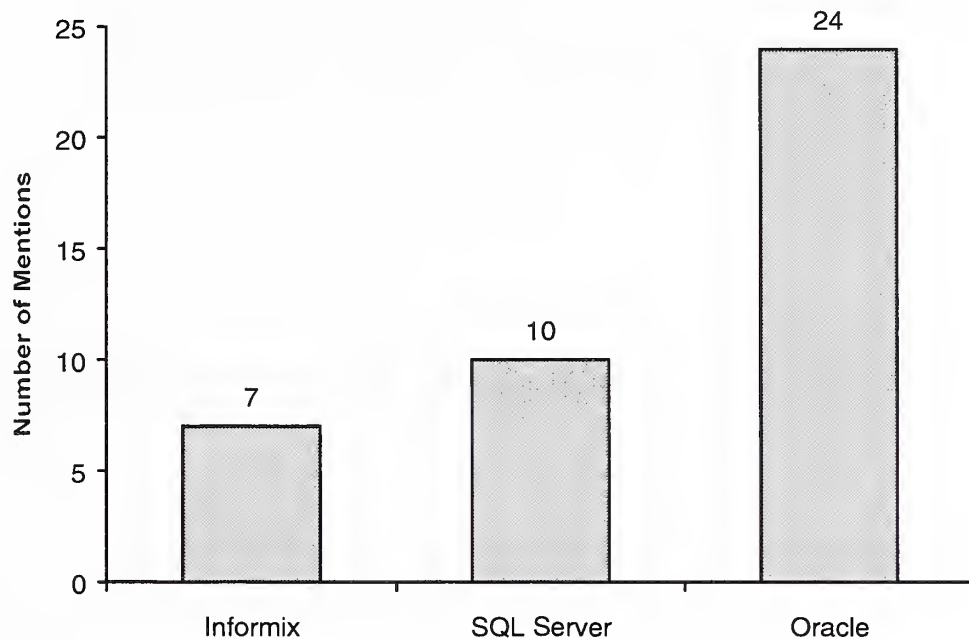


NT is already widely established within the U.S. as a platform for enterprise application solutions. However, Unix will remain as a strong alternative to NT for the next few years.

Exhibit II-11 shows the profile of database platforms currently underlying enterprise application solutions in the U.S.

Exhibit II-11

### Current Database Usage



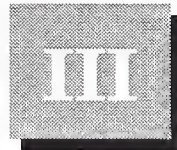
Sample of 60 IT Directors

Source: INPUT

Oracle currently dominates the market for database platforms underlying enterprise application solutions. However, over the next two years, it will be increasingly challenged by SQL Server reflecting the increased presence of NT as the leading operating system in this market.

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## Implementation of Enterprise Application Solutions

### A

#### Usage of Enterprise Application Solutions

Exhibit III-1 shows the relative usage of the leading EAS solutions within major U.S. and European organizations.

Exhibit III-1

#### Usage of EAS Software

Vendor	Number of Mentions
SAP	21
CA	8
Lotus	7
Oracle	7
PeopleSoft	7
Walker	6
SSA	3
Marcam	3
JD Edwards	3

Source: INPUT

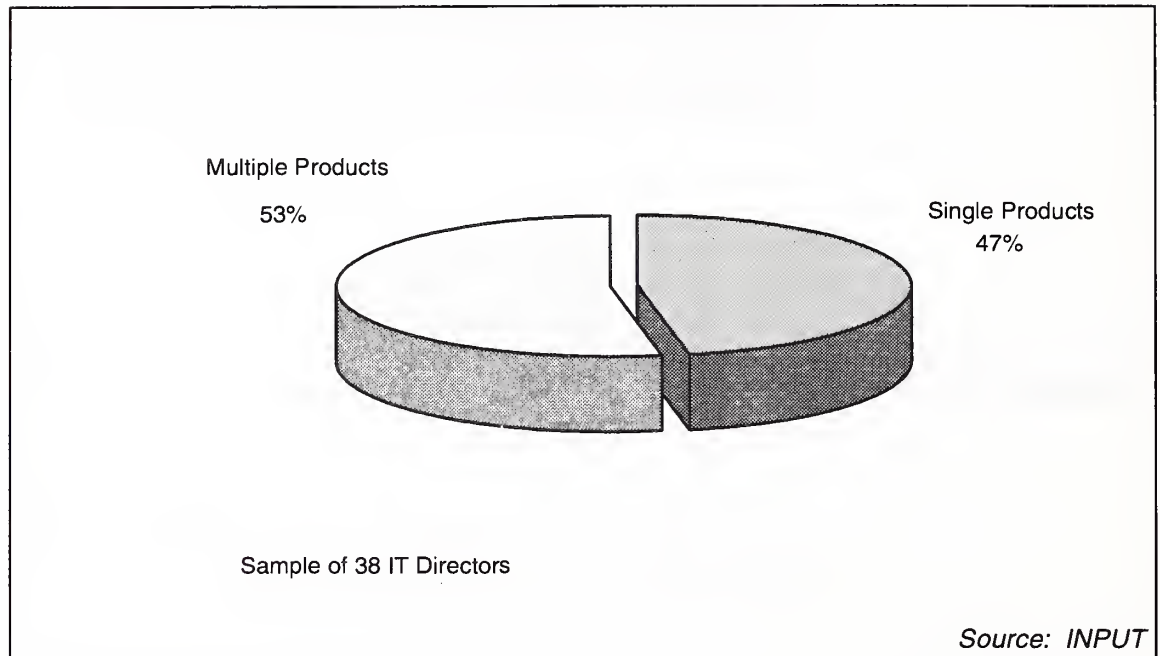
At present, the installed base of enterprise application solutions still reflects the presence of indigenous suppliers working at a local level. This is particularly true outside the U.S.

While SAP is beginning to show a strong presence world-wide, neither SAP nor Oracle dominate the installed base and Baan has a low presence so far.

Exhibit III-2 shows for the U.S. market the proportion of organizations that used a single product from one vendor and the proportion that used multiple integrated products.

Exhibit III-2

### Use of Single/Multiple Products

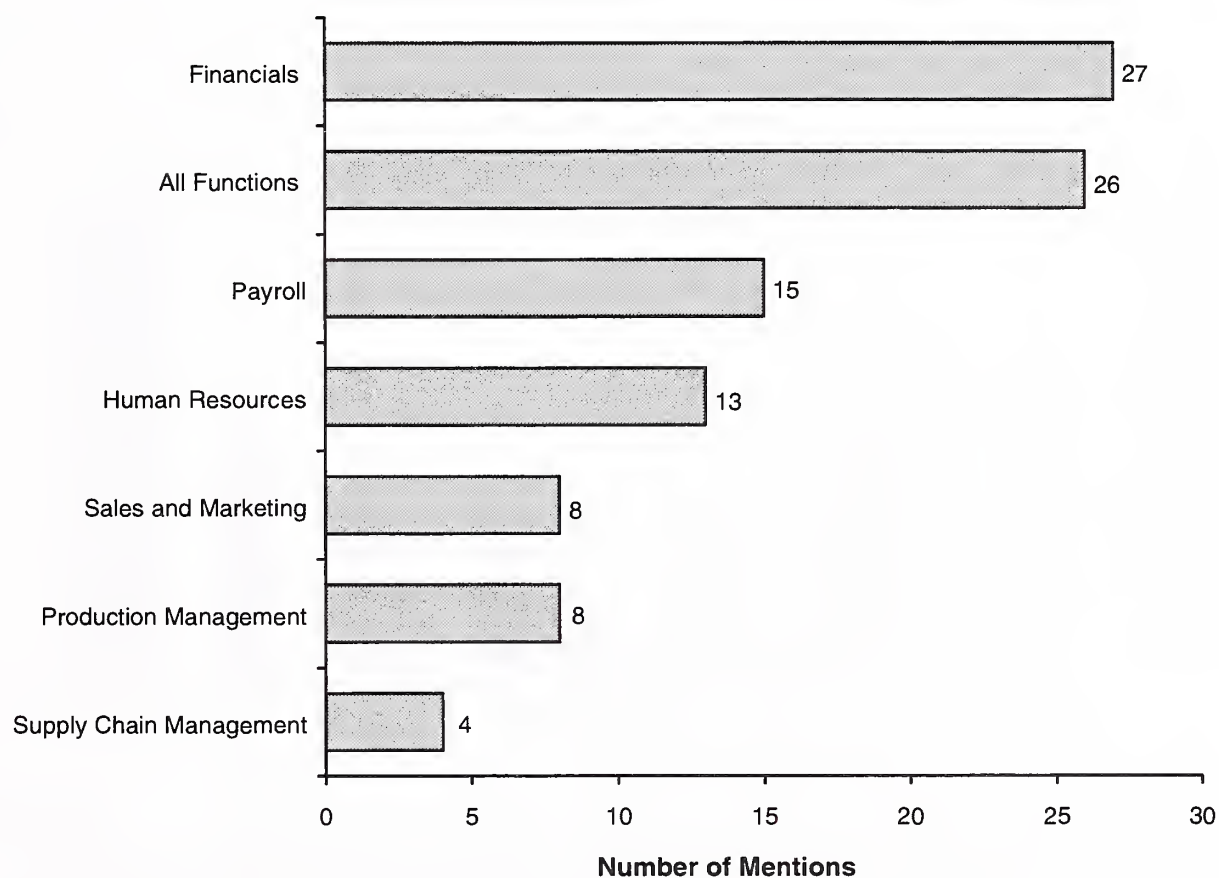


At present, approximately half of organizations use a range of products to meet their enterprise application needs. For example, Oracle Financials is well-established but Oracle has yet to establish firmly a wider product range. Despite the greater simplicity for buyers in adopting a single package and vendors' attempts to meet this need, use of multiple applications is expected to continue with increasing emphasis being placed on using multiple applications to meet all functional requirements.

Exhibit III-3 shows the number of organizations that use an enterprise application for each of a number of functions.

Exhibit III-3

### Usage of EAS Software by Function



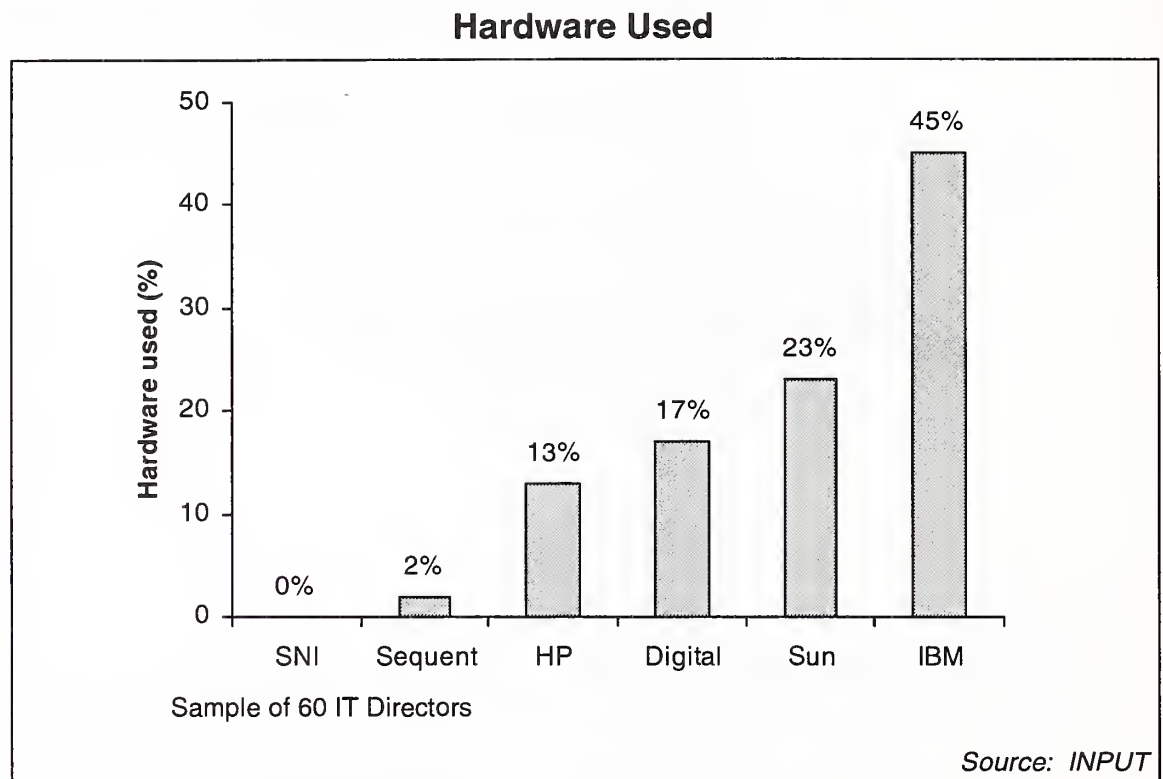
Source: INPUT

This confirms the view that many organizations currently use a range of products to meet their needs rather than standardizing on an individual enterprise application solution.

**B****Platforms Used**

Exhibit III-4 shows the profile of hardware presently underlying enterprise application solutions.

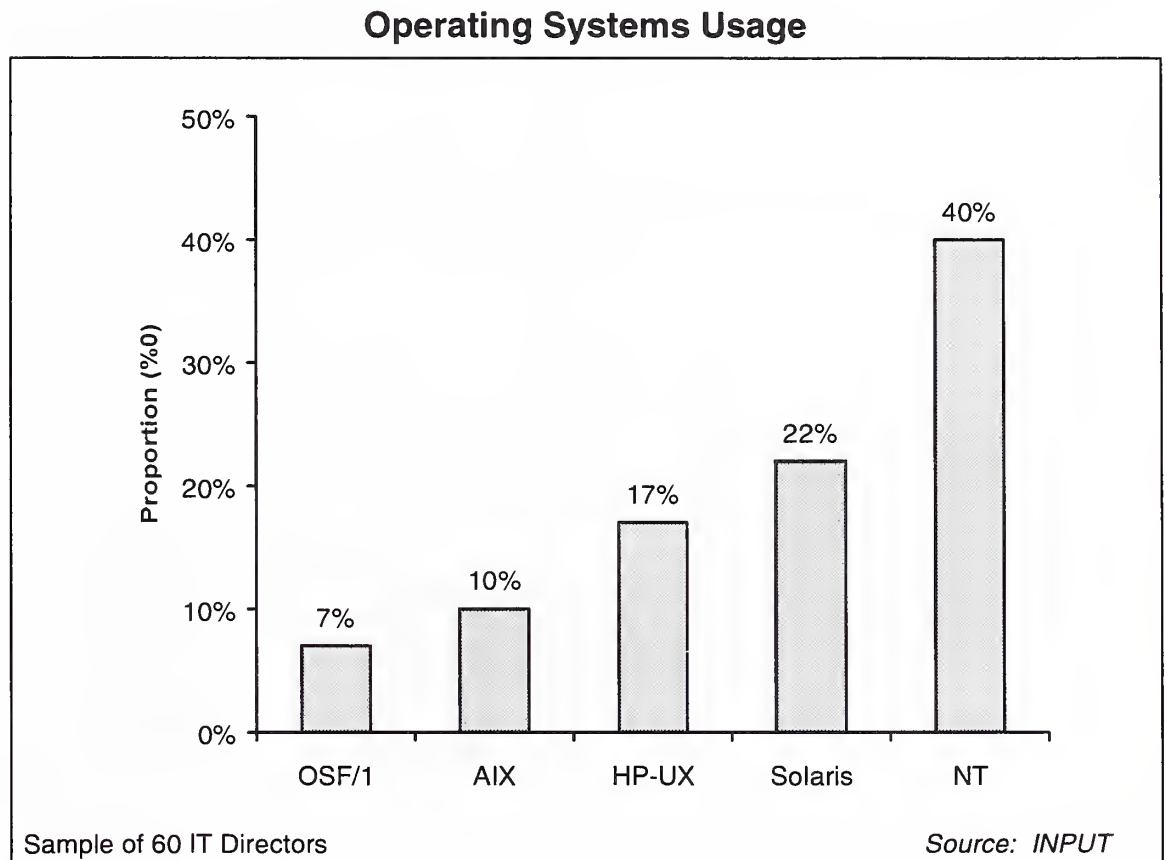
Exhibit III-4



IBM retains a strong platform presence in the U.S. This presence is strengthened by its use to underly many of the more traditional suppliers in the EAS market, such as Walker, Marcam and SSA. Walker has traditionally been an IBM mainframe product while Marcam and SSA were principally sold on the AS/400 platform.

Exhibit III-5 shows the profile of operating systems presently underlying enterprise application solutions.

Exhibit III-5

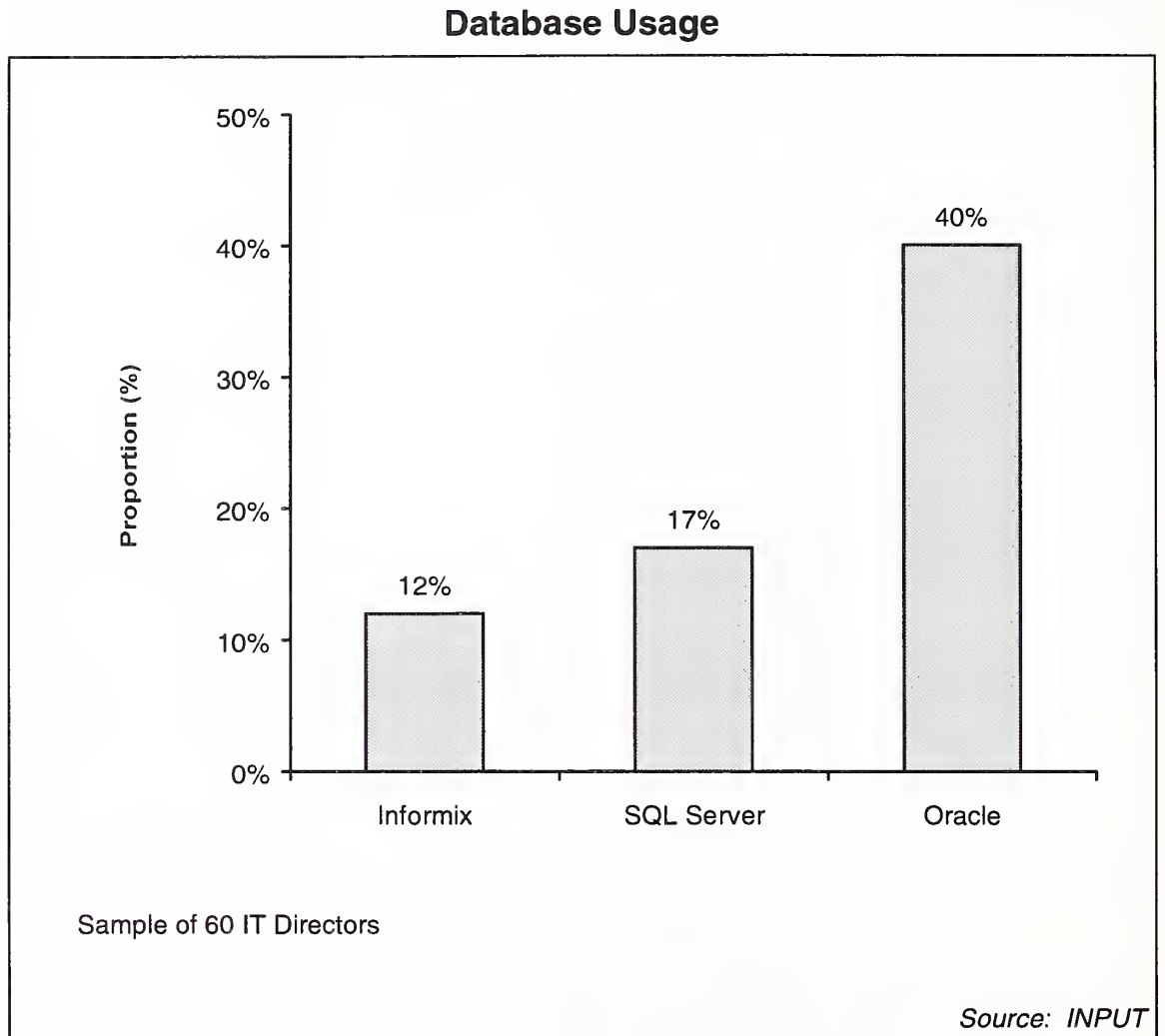


NT is already widely established within the U.S. as a platform for enterprise application solutions. The presence of Solaris and HP-UX reflect the strong presence of Sun Microsystems and Hewlett-Packard in the current EAS market.



Exhibit III-6 shows the profile of databases presently underlying enterprise application solutions.

Exhibit III-6

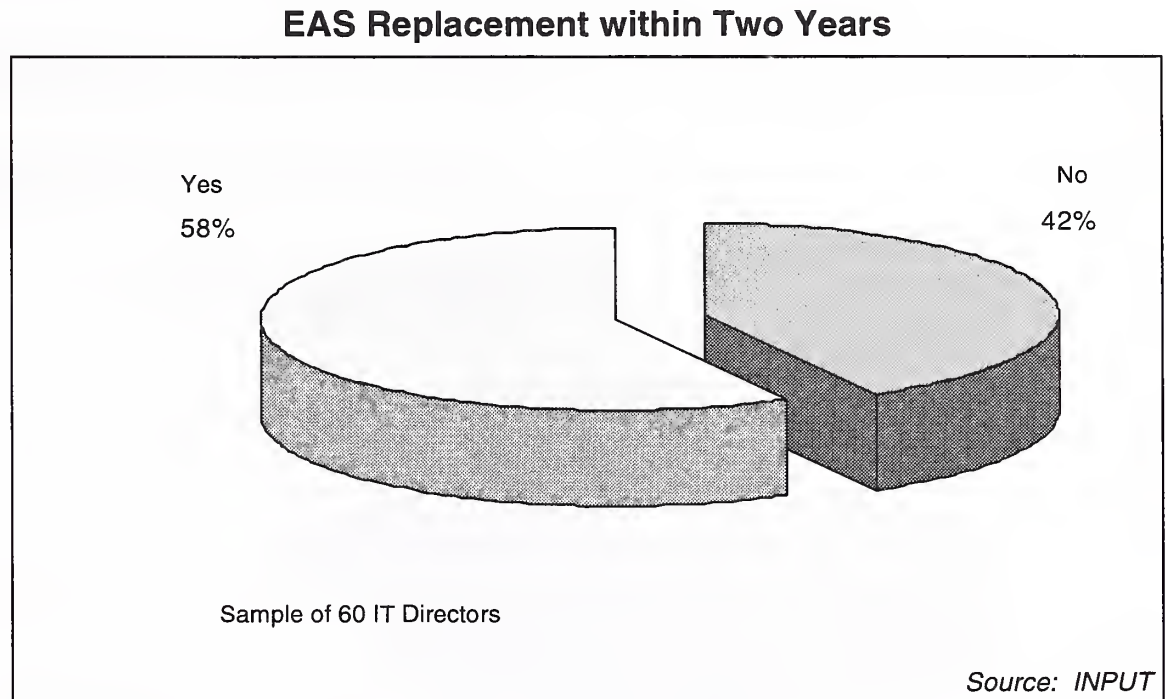


Oracle dominates the database platforms underlying enterprise application solutions at present. However, SQL Server is rapidly becoming established on the back of NT.

**C****Future Usage of Enterprise Application Solutions**

Exhibit III-7 shows the proportion of organizations that intend to replace their main enterprise application or ERP system within the next two years.

Exhibit III-7

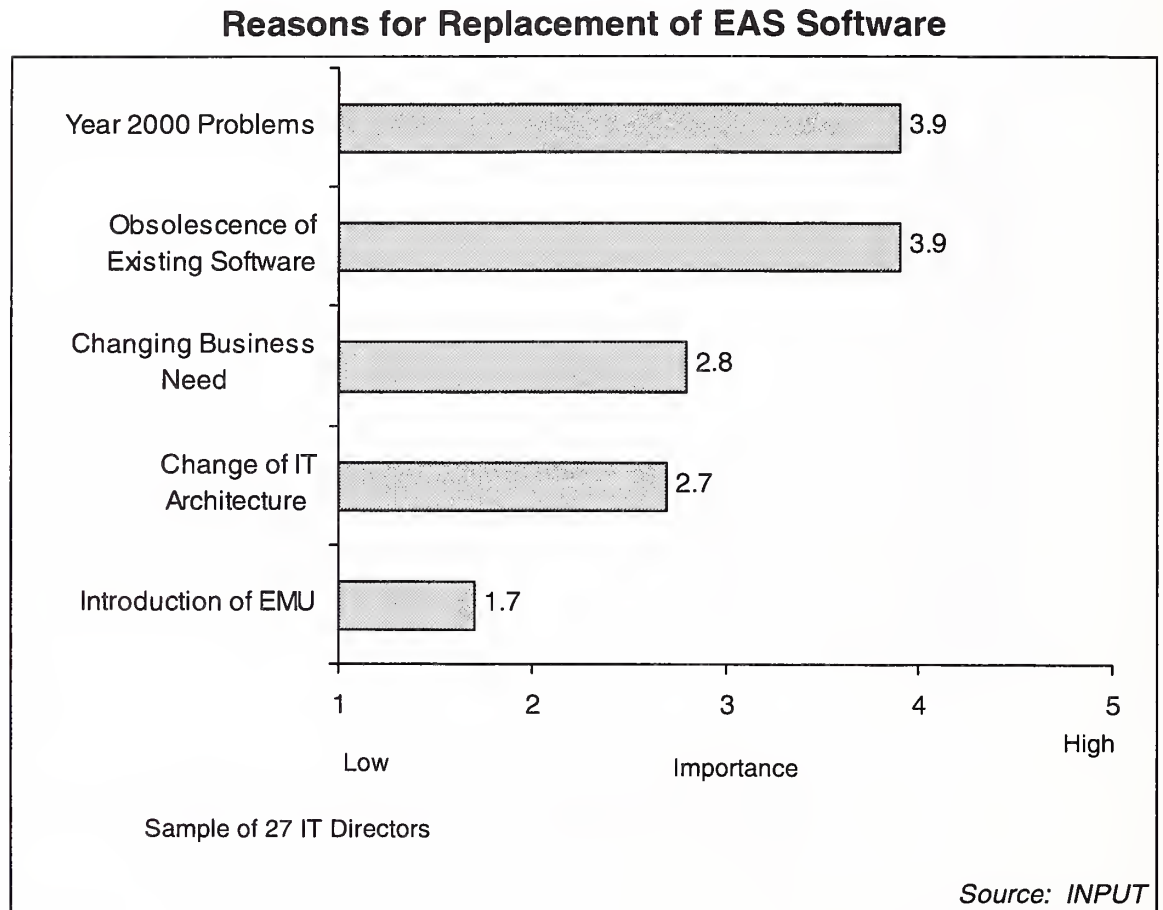


The current replacement rate is very high and is currently driven by the combination of aging systems and Y2K problems.

Exhibit III-8 shows the importance of each a number of potential reasons for replacing the main enterprise application or ERP solution.

At the present time, changing business need is not a major factor leading to enterprise application solution replacement in the U.S.

Exhibit III-8



The selection of a single enterprise application product rather than a range of best of breed applications is a more convenient approach for buyers provided their needs can be met in this manner.

However, the proportion of buyers expecting to purchase multiple best of breed applications to meet their needs is on the increase, suggesting that the major EAS solutions are still incapable of meeting the full range of functionality required by the majority of businesses.

Exhibit III-9 shows the extent to which potential buyers intend to implement a set of “best of breed” applications rather than a single enterprise application product.

Exhibit III-9

### Planned Use of Multiple Best of Breed Applications

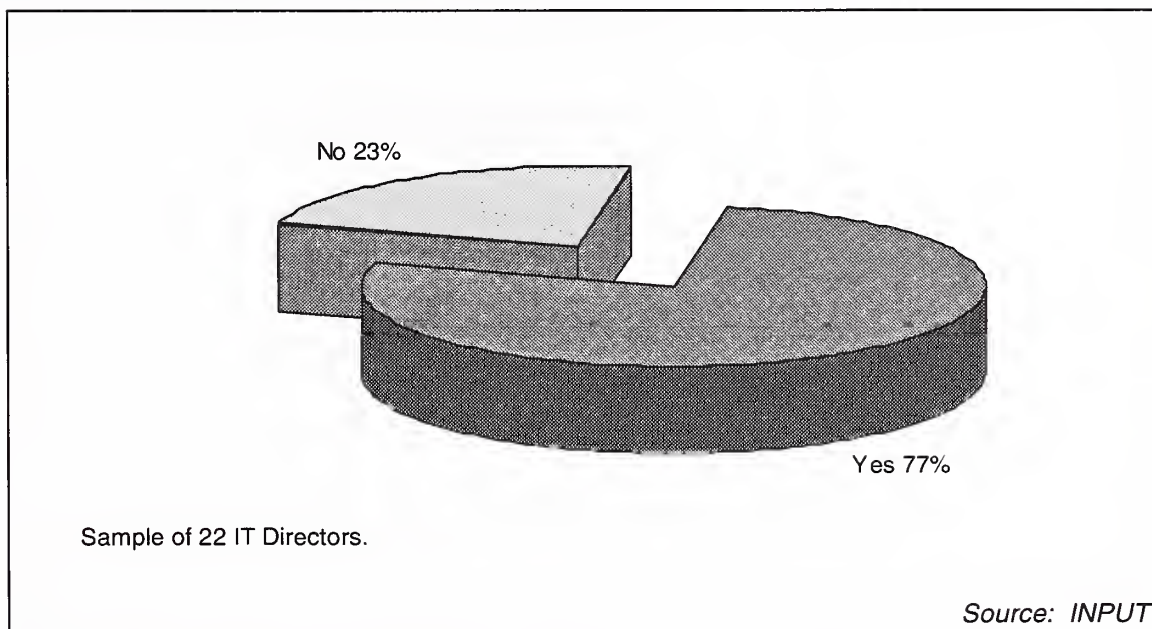


Exhibit III-10 shows the extent to which potential buyers expect to implement a range of products versus a single integrated product.

Exhibit III-10

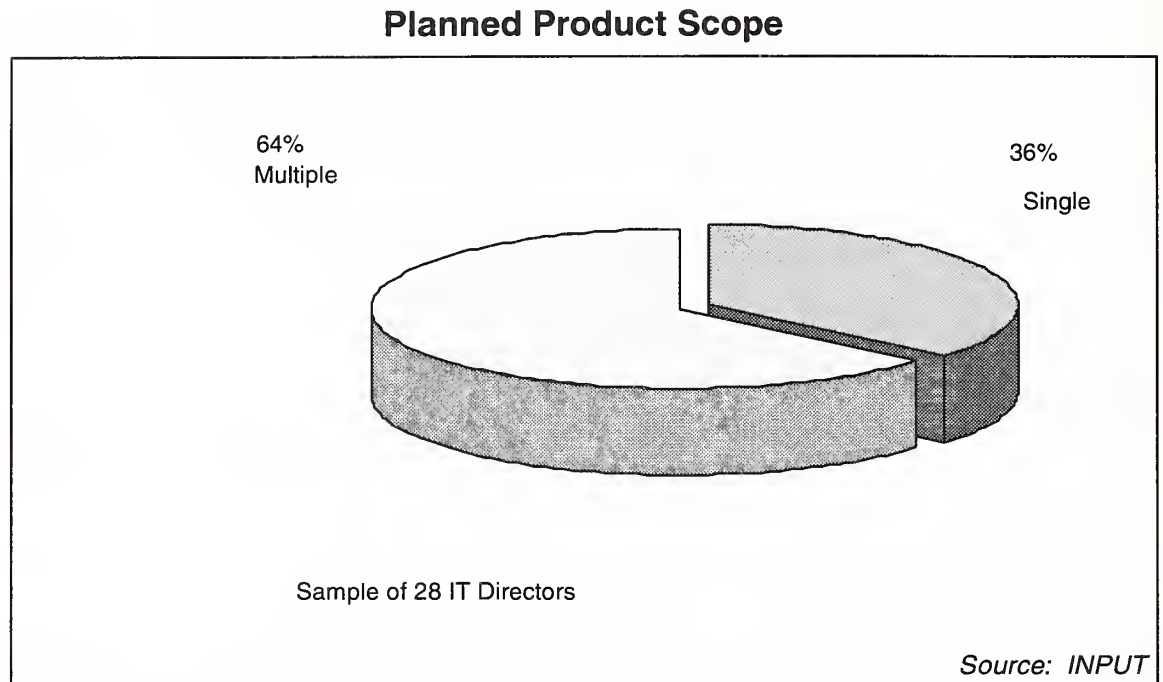
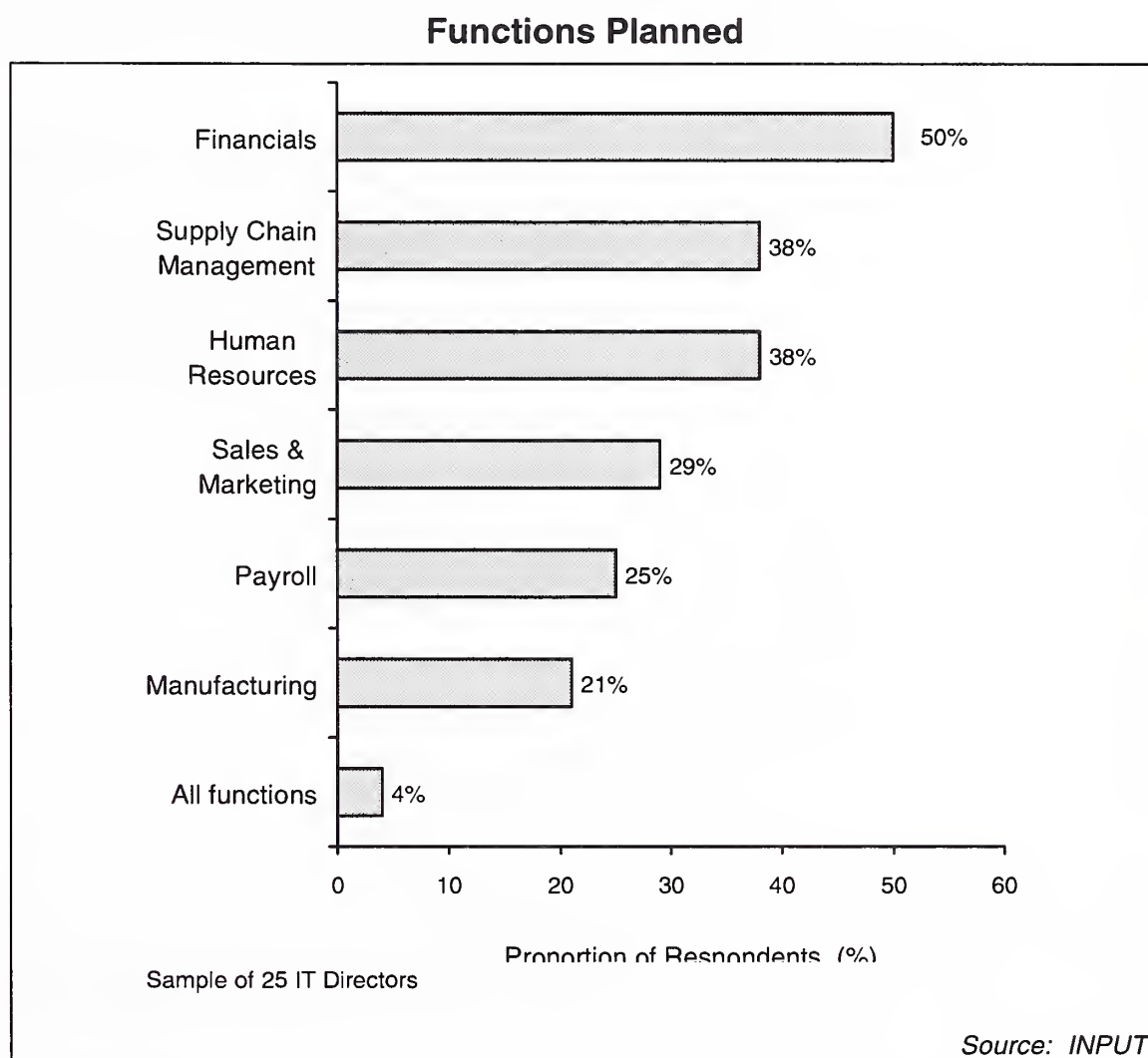




Exhibit III-11 lists the profile of functions that potential buyers intend to implement.

Exhibit III-11



The range of modules planned is determined to a certain extent by the industry sector in which the buyer operates. Only a very small minority of buyers expects to implement all business functions using an enterprise application solution and enterprise application solutions will continue to be dominated by their financial modules.

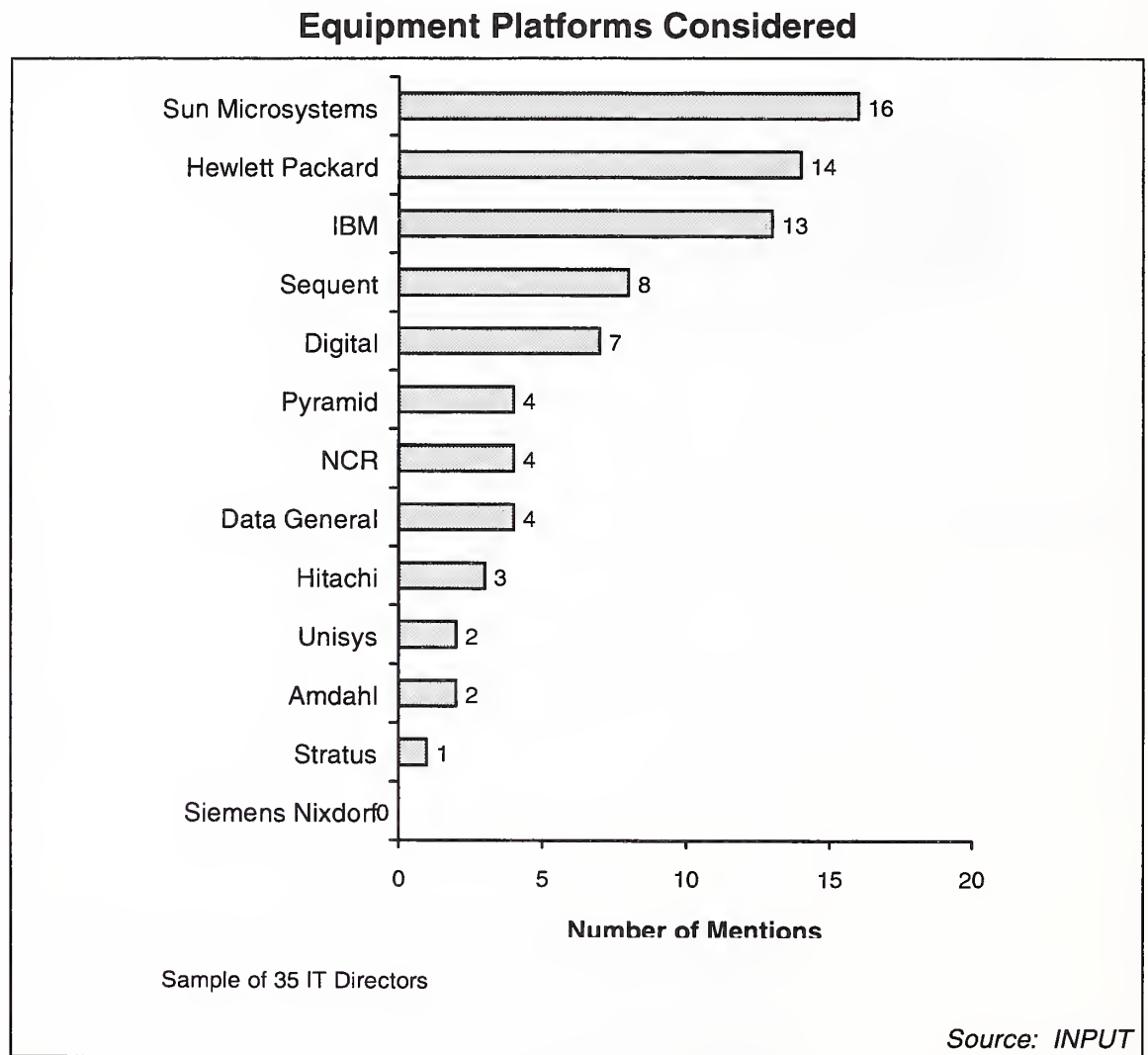
Nonetheless, the proportion of organizations that plans to implement human resources, supply chain management and sales and marketing via their enterprise application solution is increasing considerably compared with the current installed base.

These areas will form a major focus of enterprise application solutions implementations over the next few years.

**D****Platforms Planned**

Exhibit III-12 lists the equipment platforms that potential buyers would consider as the main platform for their enterprise applications solution.

Exhibit III-12

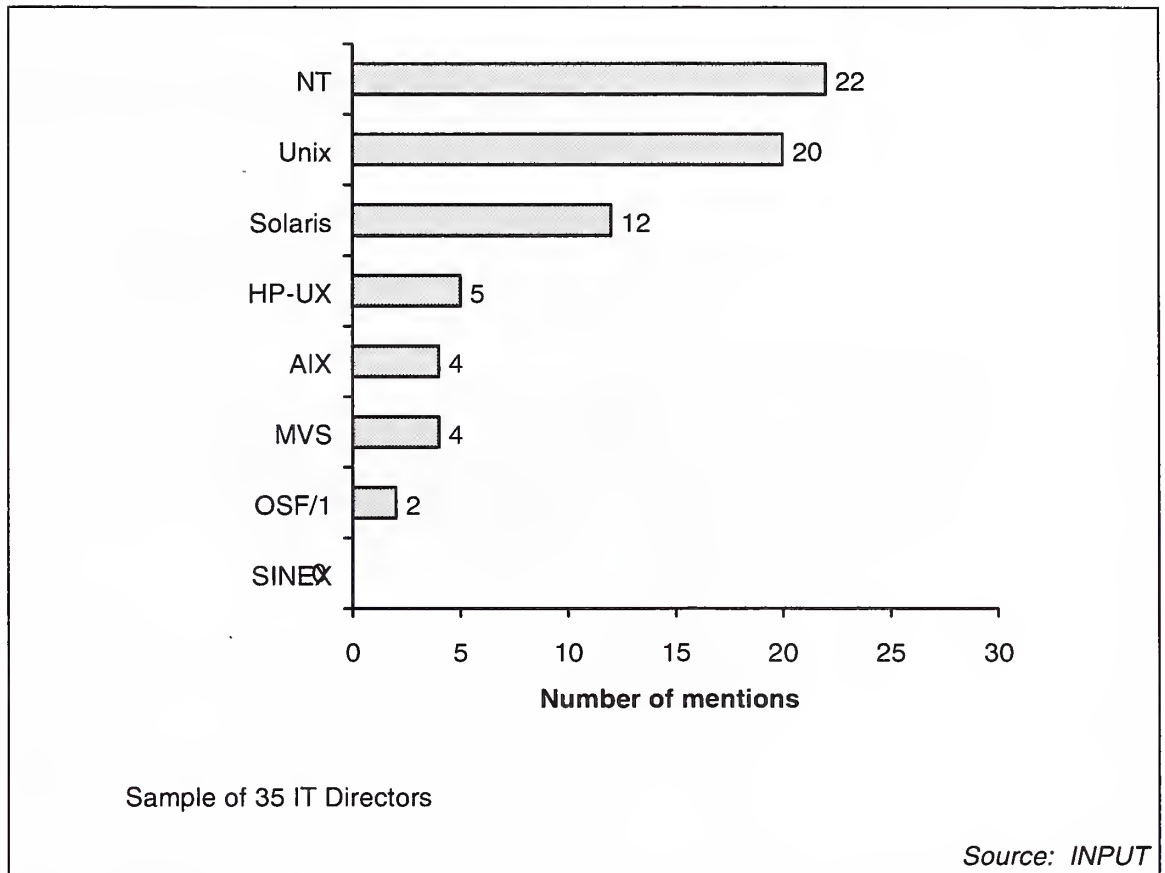


IBM is expected to maintain a strong position in supplying platforms to underly enterprise application solutions in the short-term. However, the company will be increasingly challenged by platforms from Sun Microsystems and Hewlett-Packard which are beginning to take over leadership in this market.

Exhibit III-13 lists the operating systems that potential buyers would consider as the main platform for their enterprise applications solution.

Exhibit III-13

### Operating System Platforms Considered

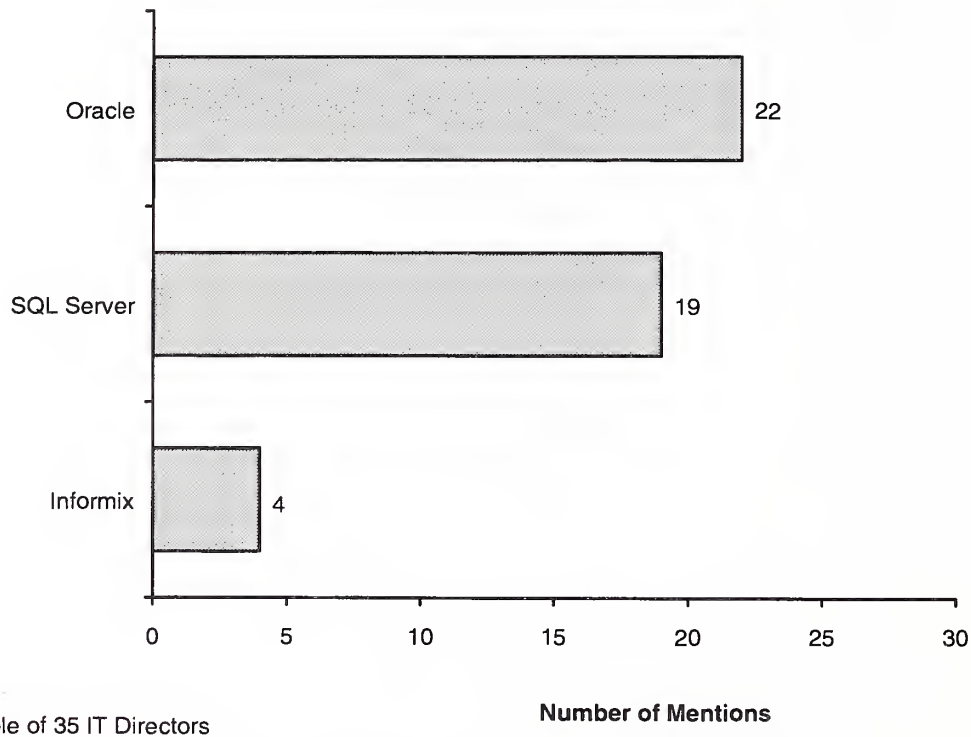


NT is expected to maintain its lead over Unix in this marketplace, though Unix will continue to maintain a strong market share.

Oracle is expected to be strongly challenged by SQL Server over the next few years reflecting the strong presence of NT as the operating system of choice. Exhibit III-14 lists the database platforms that potential buyers would consider as the main platform for their enterprise applications solution.

Exhibit III-14

### Database Platforms Considered



Source: INPUT

**E****Usage of Implementation Services**

Exhibit III-15 shows the proportion of organizations that used external services to support their enterprise application implementation.

Exhibit III-15

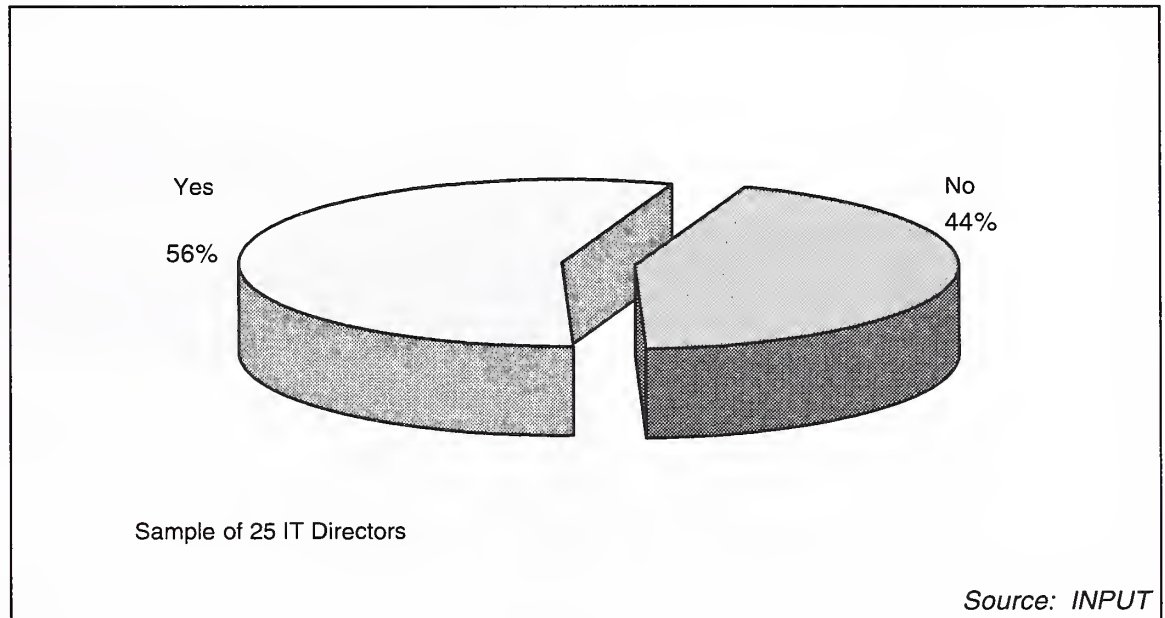
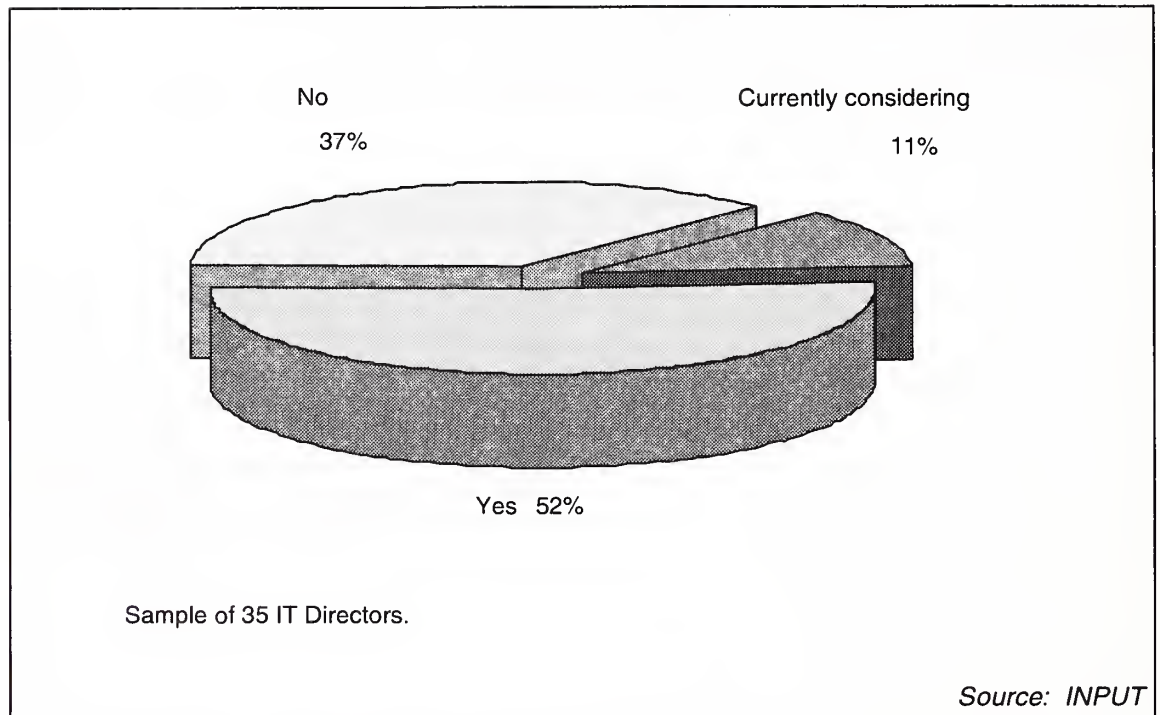
**Use of External Services to Support Implementation**



Exhibit III-16 shows the extent to which potential buyers intend to use an external IT services vendor to assist them in implementing their enterprise application.

Exhibit III-16

### Planned Use of External Services Vendor



Accordingly, the proportion of organizations using external vendors to assist them in enterprise application solutions is expected to remain at approximately 60%. Factors behind usage of external vendors include:

- The shortage, and high cost, of skills in the leading enterprise application solutions
- The need to complete implementations in time to meet the Y2K deadline

**F****Implementation Approaches**

Exhibit III-17 shows the profile of implementation approaches adopted by organizations.

Exhibit III-17

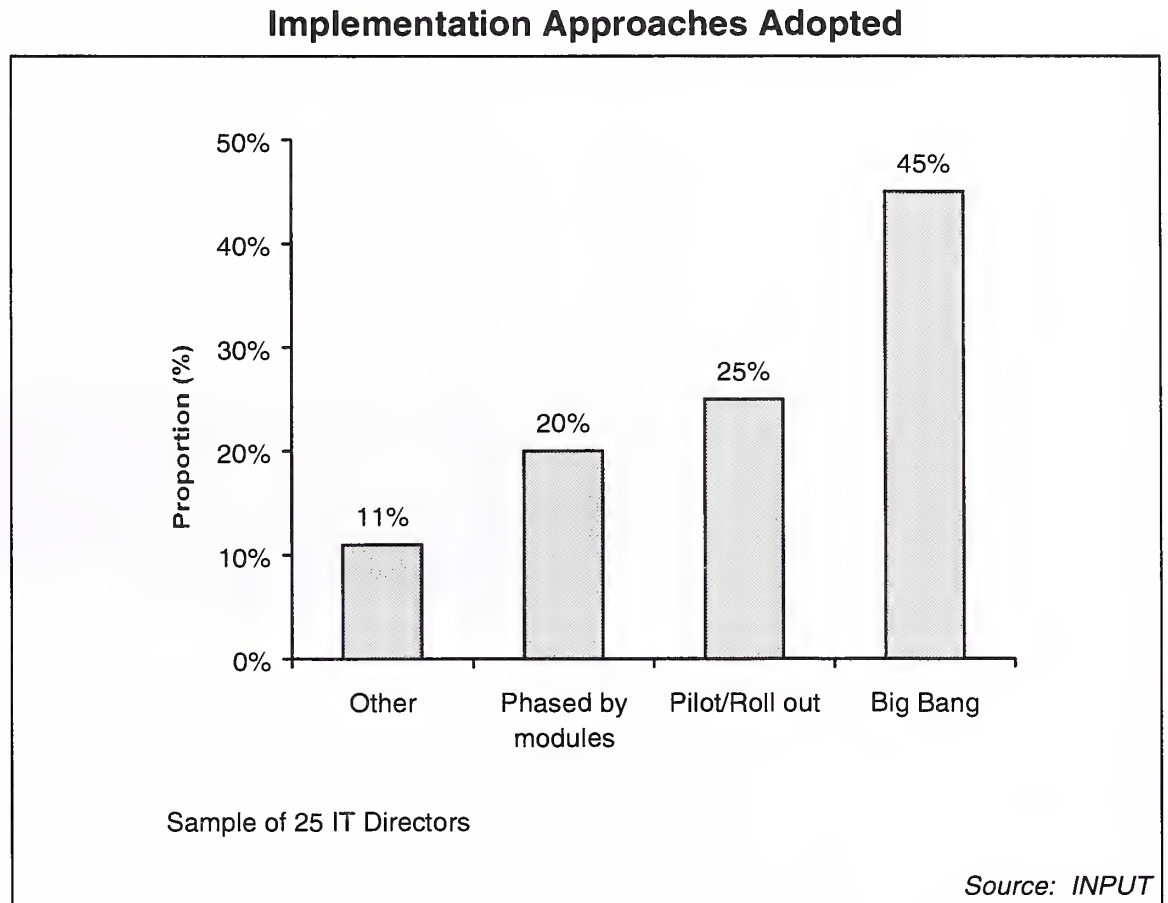
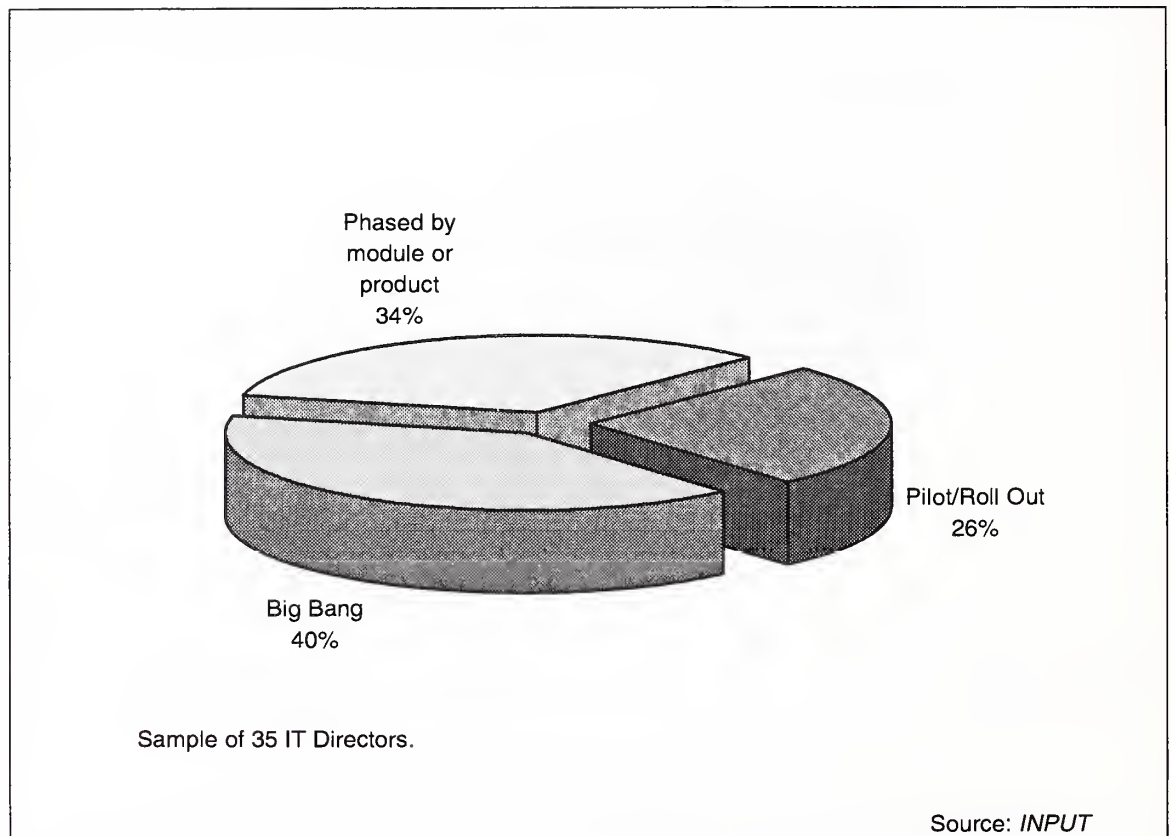


Exhibit III-18 lists the extent to which various implementation approaches are favored by potential buyers.

Exhibit III-18

### Implementation Approaches Favored



Historically, buyers seem to have favored the big bang approach to enterprise application solution implementation. Surprisingly, this approach appears to remain in favor though an increasing number of organizations now prefer to adopt a phased approach to implementation.

This change in approach may reflect the gradually increasing range of business functions being addressed by enterprise application solutions.

It also reflects the increasing geographic scope of enterprise application solutions, with organizations often standardizing on particular products and implementing them in an integrated manner across countries or geographies.

Exhibit III-19 shows the profile of level of business change that accompanied enterprise application implementation.

Exhibit III-19

### Level of Business Change: Existing Implementations

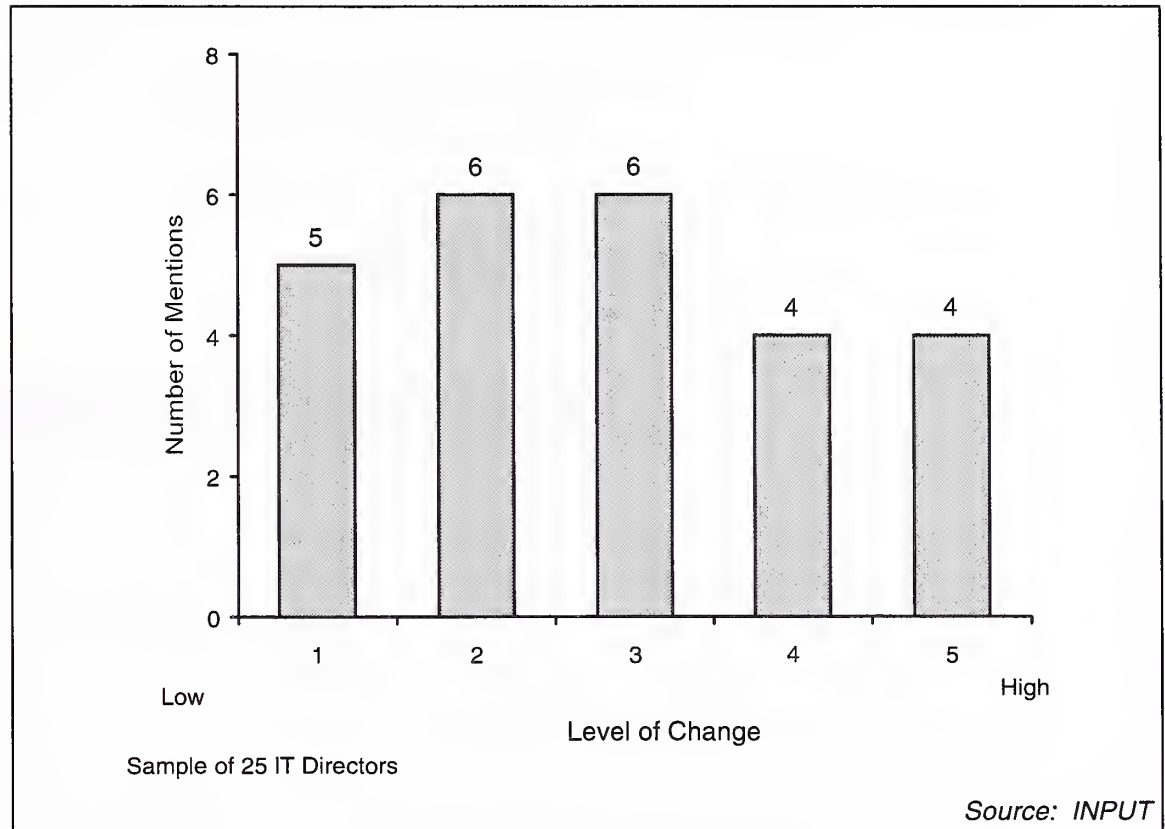
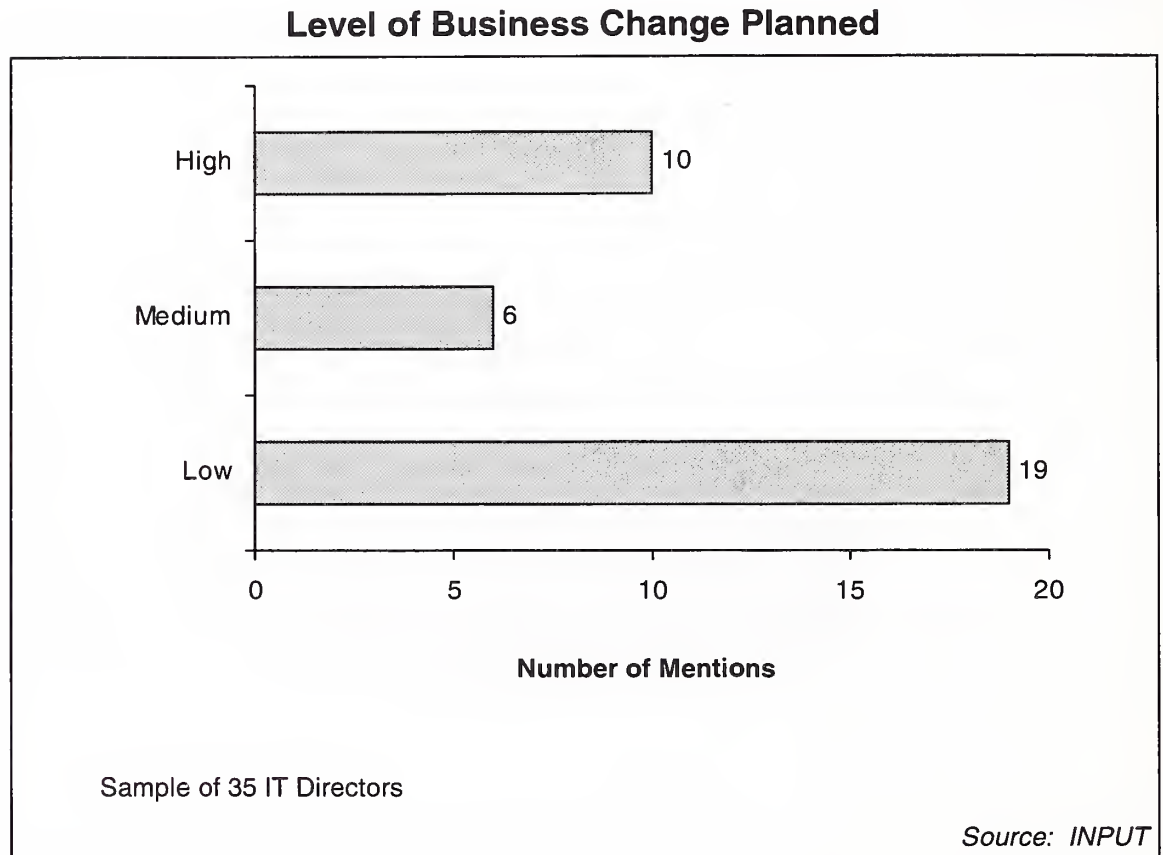


Exhibit III-20 shows the profile of level of business change that buyers expect will accompany enterprise application implementation in future.

Exhibit III-20



The level of business change that accompanies enterprise application solution implementations remains largely constant. In existing implementations, the level of business change is typically low, with only 30% of organizations undergoing major business change.

Where it occurs, a high level of business change is seen to be both business-driven and application-driven:

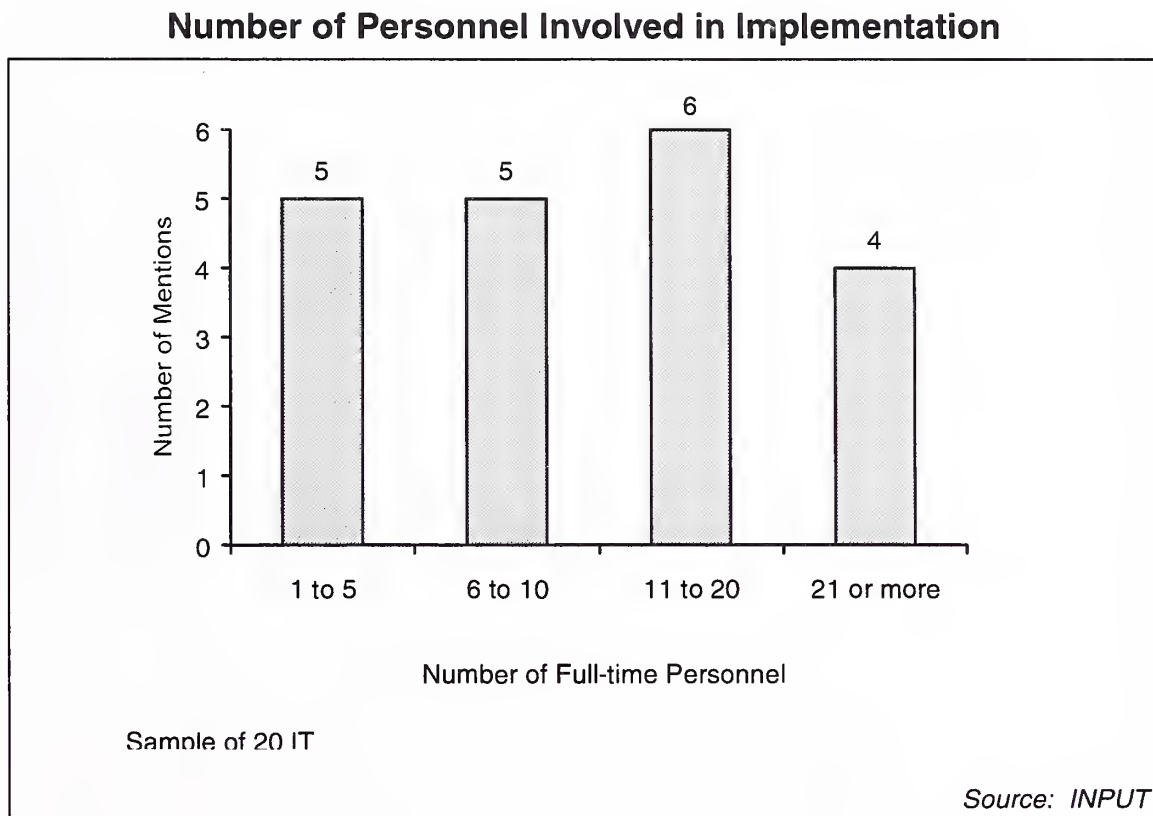
- Some buyers mentioned that enterprise application solution implementation is part of a major business process review or company reorganization and that the need for business change was paramount
- Other buyers stated that considerable business process change was unavoidable when implementing a new enterprise application solution and was necessary to benefit from the technology change.



**G****Implementation Costs and Timescales**

Exhibit III-21 shows the profile of number of personnel involved in implementation.

Exhibit III-21



On average, twelve full-time personnel were involved in enterprise application solution implementations.

The average implementation times for companies and units within companies are 19 months and 8 months respectively.

Exhibit III-22 shows the profile of enterprise application implementation periods for companies in toto.

Exhibit III-22

### Implementation Timescales: Company



Reflecting the pressure on IT managers and vendors to reduce implementation times, buyers expect enterprise application solution implementation times to decrease in the short-term. In addition, this expectation may reflect the pressure on organizations to implement enterprise application solutions before the Y2K deadline. In some cases, this may necessitate a more standard product implementation than might otherwise have been the case.

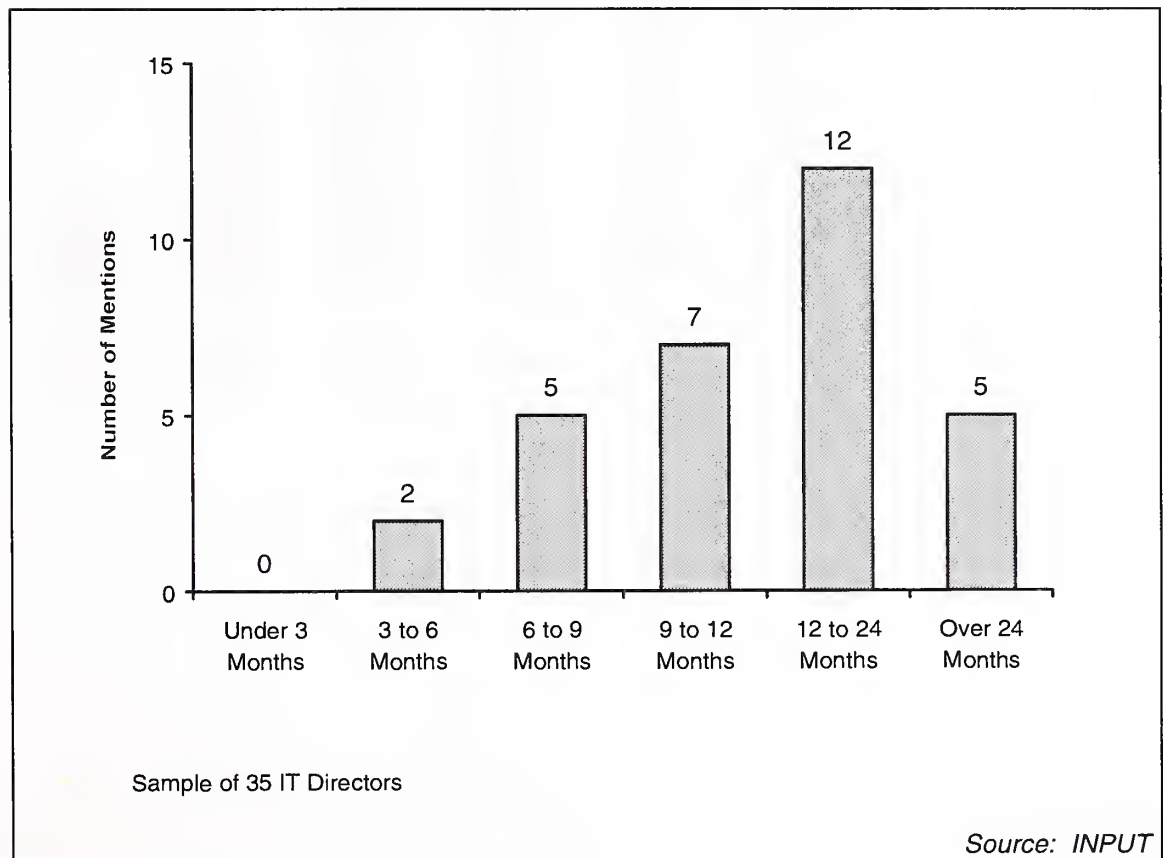
Potential buyers anticipate that the average implementation times for companies and units within companies will be 16 months and 8 months respectively.

This shortening of implementation times at the company level should also arise from improved usage of business templates and implementation tools. Both the major EAS solution vendors and their partners have made considerable investments in tools designed to shorten, and reduce the cost of, the implementation process.

Exhibit III-23 lists the expected implementation times of potential buyers for enterprise application implementation at the company level.

Exhibit III-23

### Implementation Time Planned: Company



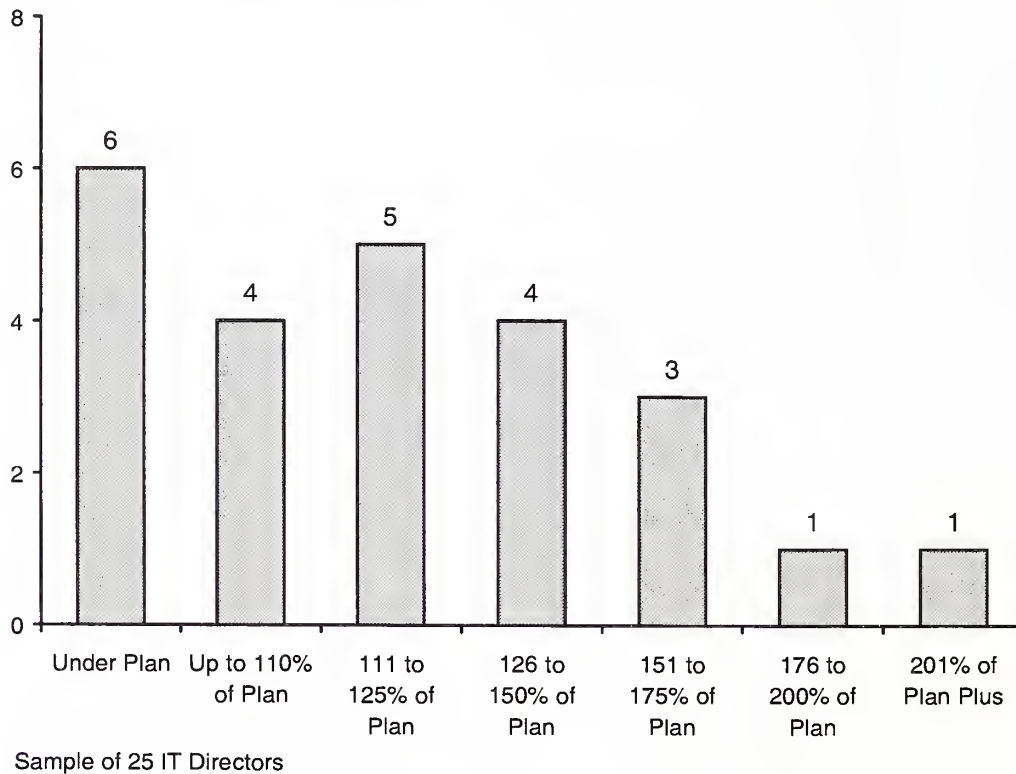
Overall, organizations have in the past experienced some difficulty in implementing enterprise applications to time and budget. On average, organizations exceeded both their implementation budgets and their implementation time-scales by approximately 25%.

In many cases, the situation was much worse than this with 20% of organizations exceeding their planned timescales by 50%. Even more significantly, a third of organizations exceeded their implementation budgets by in excess of 50%.

Exhibit III-24 shows how implementation times compared to plan.

Exhibit III-24

### Implementation Time vs Plan

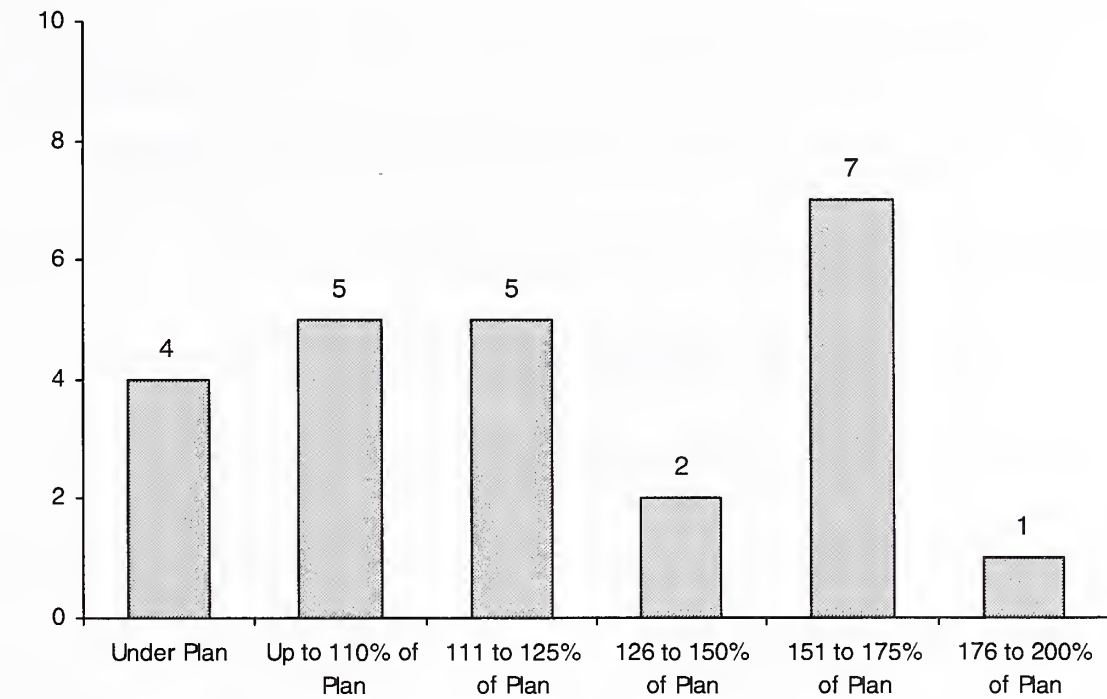


Source: INPUT

Exhibit III-25 shows how implementation budgets compared to plan.

Exhibit III-25

### Implementation Budget vs Plan



Sample of 25 IT Directors

Source: INPUT



Exhibit III-26 shows the average implementation budget broken down by category.

Exhibit III-26

### Implementation Cost Breakdown: Absolute Value

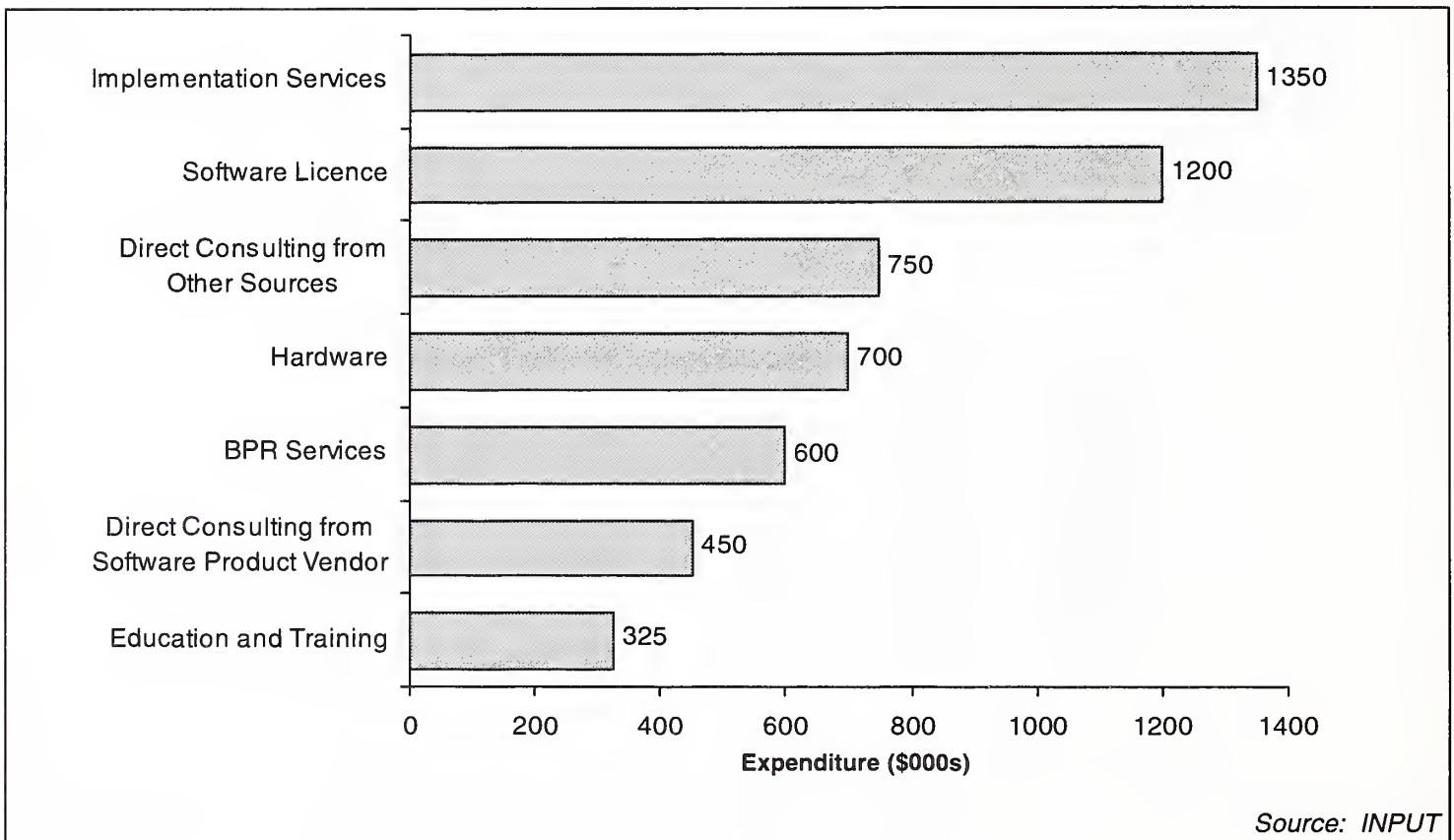
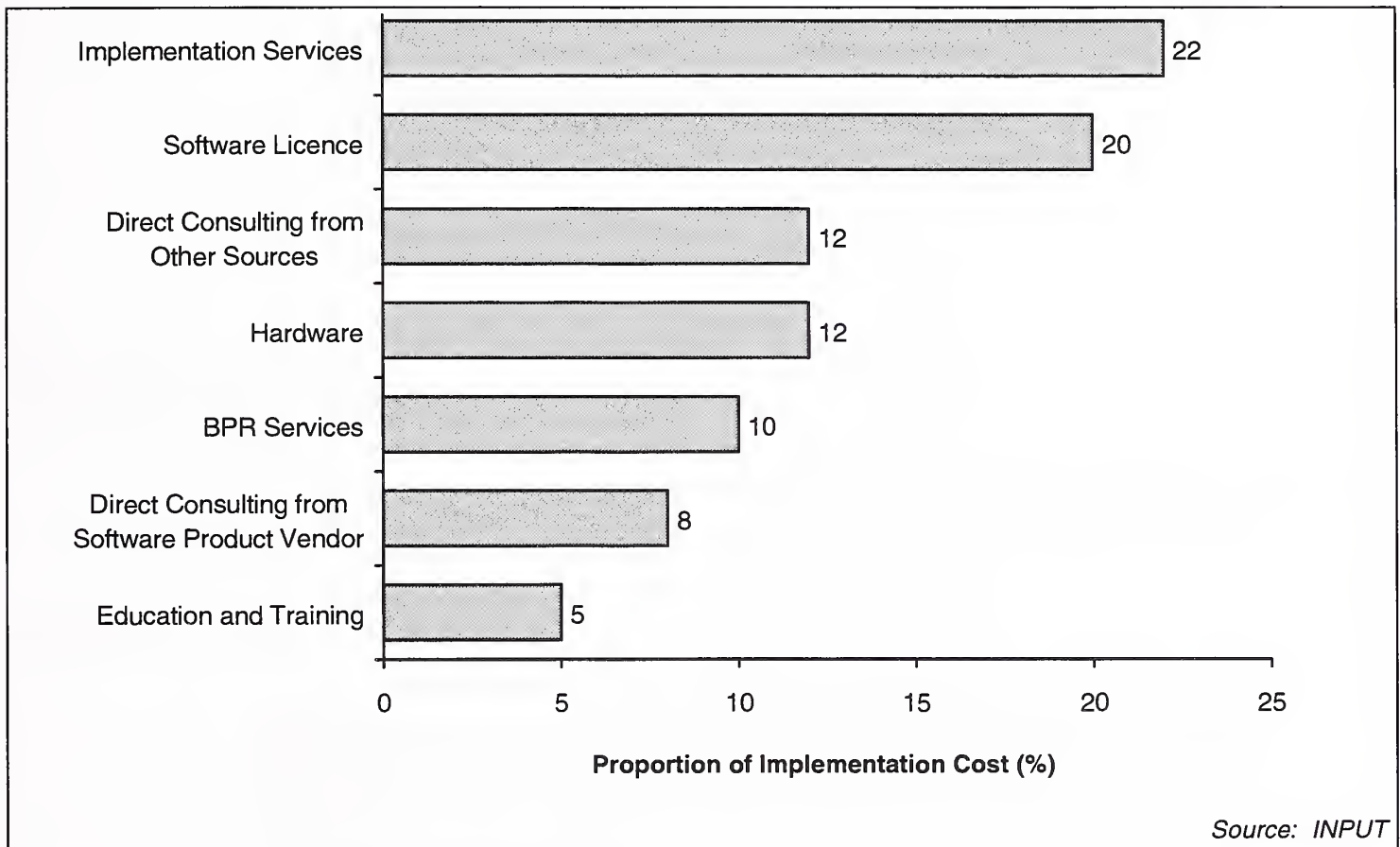


Exhibit III-27 shows the implementation costs broken down in percentage terms.

Exhibit III-27

### Implementation Cost Breakdown: Percentage Split

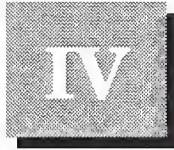


The average implementation budget in the U.S. is \$6m. Product purchases, both hardware and software, account for approximately a third of implementation costs. External implementation services, excluding training, account for approximately 50% of the cost of implementation. External implementation services remain dominated by services provided by service partners rather than by direct services supplied by the product vendor.

Earlier studies suggested that training is an aspect of implementation that is frequently inadequately resourced. Here, this may again be the case, with training accounting for only 5% of implementation cost.

Organizations are still concerned with extending the functionality of their enterprise applications to give a wider coverage of business processes. However, a considerable proportion of organizations still find that this is best achieved by use of multiple best of breed applications rather than attempting to use a single integrated product for all business processes.

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## Satisfaction with Enterprise Application Solutions

### A

#### Achievement of Benefits

Exhibit IV-1 shows the difference between importance and achievement for a number of potential benefits from use of enterprise application solutions.

Exhibit IV-1

**Satisfaction with Benefit Achievement**

	Importance	Satisfaction	Difference
Addressing Year 2000 issues	4.5	3.9	0.6
Reducing business costs	4.1	2.7	1.4
Tactical reengineering	4.0	3.4	0.6
Improved interaction with suppliers	3.7	3.2	0.5
Overall business benefit	3.6	3.3	0.3
Gaining/retaining competitive edge	3.5	3.1	0.4
Strategic reengineering of the business	3.0	2.8	0.2
Improving responsiveness to customer demand	2.6	2.8	-0.2
Accessing new revenue channels	2.3	2.5	-0.2
Creating business barriers to competition	1.8	2.3	-0.5

Source: INPUT

Business process reengineering in the U.S. has often been strongly associated with cost reduction and the major benefit sought by buyers of enterprise application solutions in the past was the reduction of business

cost. Overall the current enterprise application solution installed base has performed poorly in this respect.

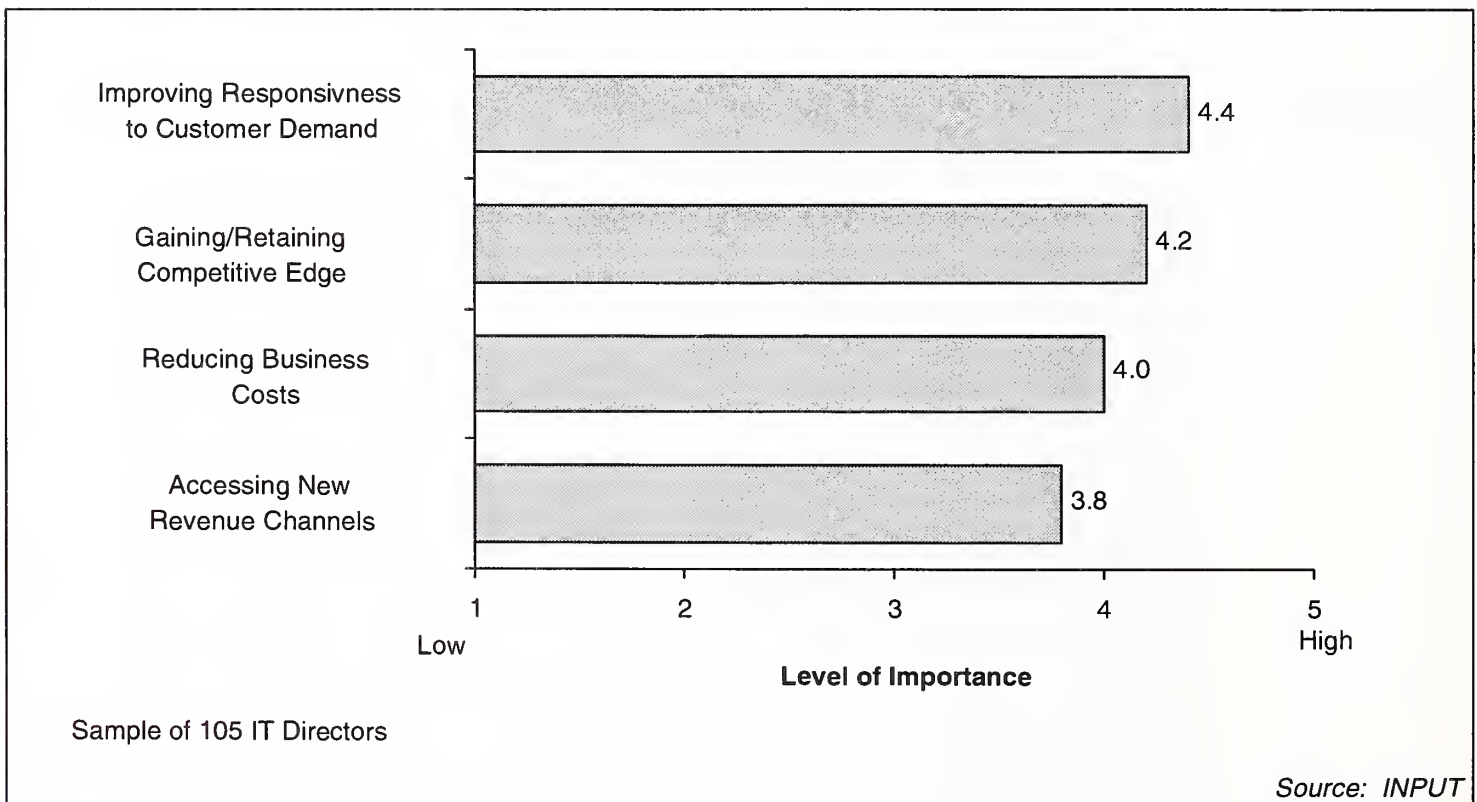
However, addressing Year 2000 issues was also an important driving force in the enterprise application solution market, and enterprise application solutions are perceived to have performed well in addressing this issue.

Creating business advantage whether through improved responsiveness to clients or improved interaction with suppliers was not seen to be an important factor in enterprise application solution purchase amongst the current installed base.

However, there are signs that the key driving forces are changing. Exhibit IV-2 lists the most important benefits sought by potential buyers from enterprise application implementation.

Exhibit IV-2

### Most Important Benefits Sought





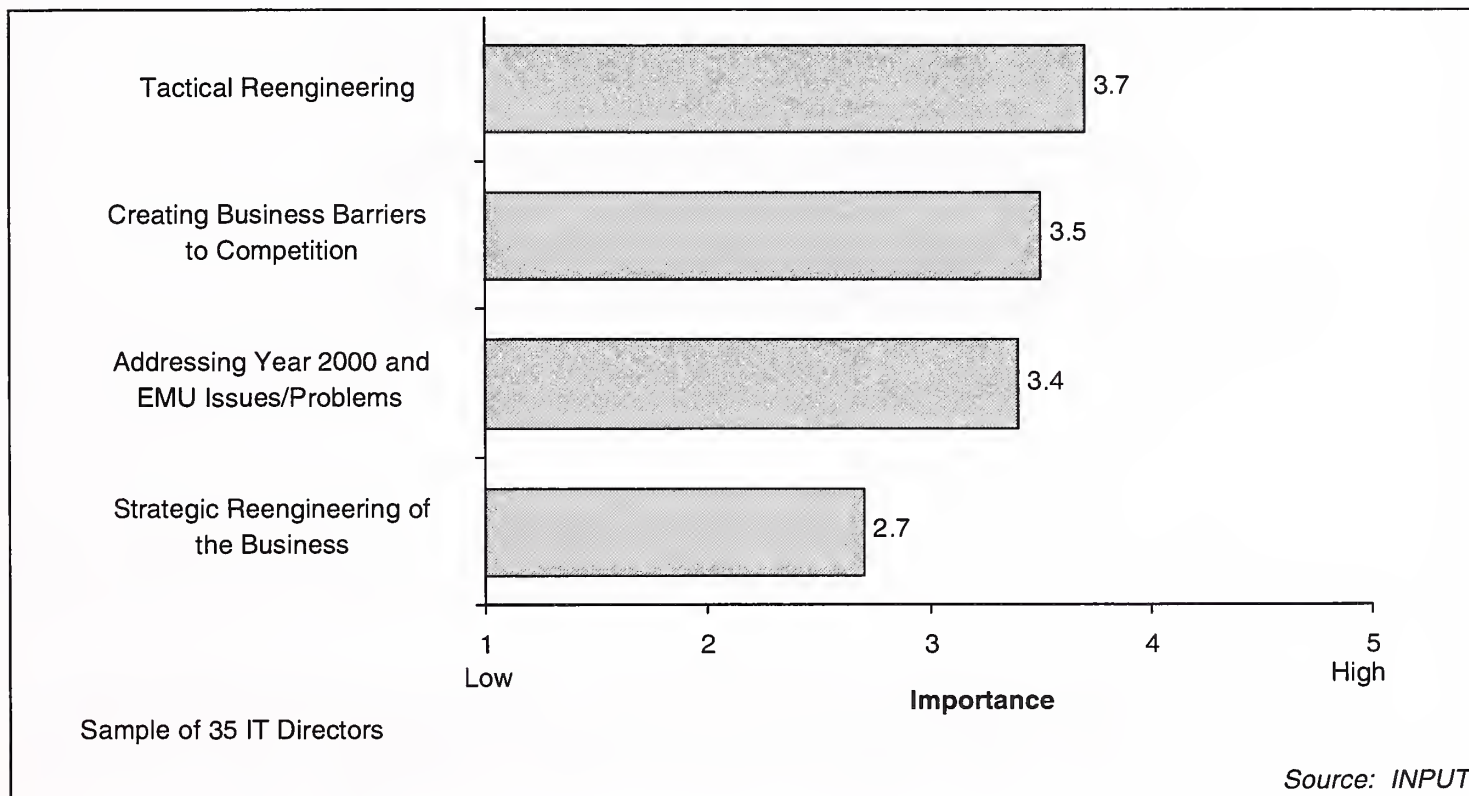
Reducing business costs continues to be important to buyers. However, the most important benefit sought by current purchasers is improved responsiveness to customer demand. Developing a competitive edge is also an important requirement.

This has important implications both for the functionality of enterprise application solutions, which now need to be more customer-focused rather than largely emphasizing materials and supplier management, and for the competencies of services vendors which also need to be more outward looking with strong distribution and sales and marketing expertise.

Exhibit IV-3 lists the less important benefits sought by potential buyers from enterprise application implementation.

Exhibit IV-3

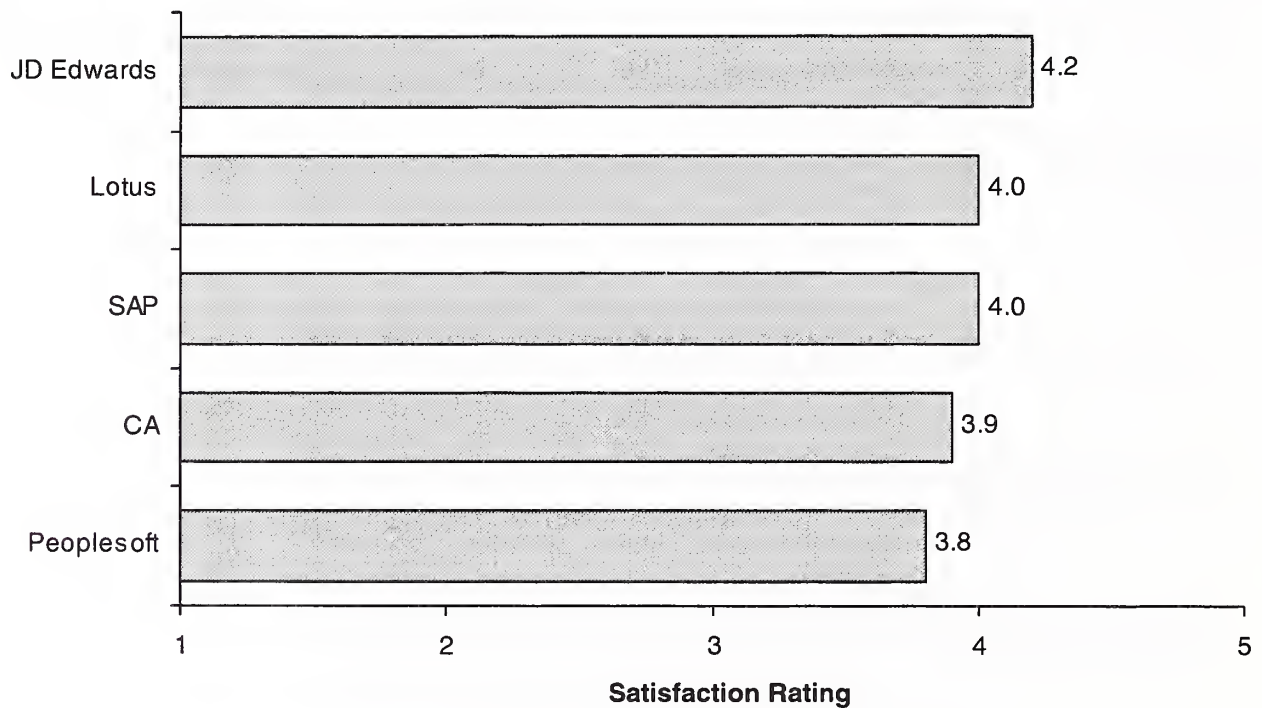
### Less Important Benefits Sought



**B****Satisfaction with Enterprise Application Solutions**

Exhibit IV-4 lists those EAS vendors with whom buyers expressed a relatively high level of satisfaction.

Exhibit IV-4

**Satisfaction with EAS Software: High Satisfaction**

Source: INPUT

The areas of high satisfaction tend to represent the newer products now making their way in the installed base of enterprise application solutions in the U.S. such as SAP, JD Edwards and PeopleSoft.

The key strengths reported for SAP were:

- The high level of integration and similarity between modules
- Its ease of use
- Its ability to cope with change

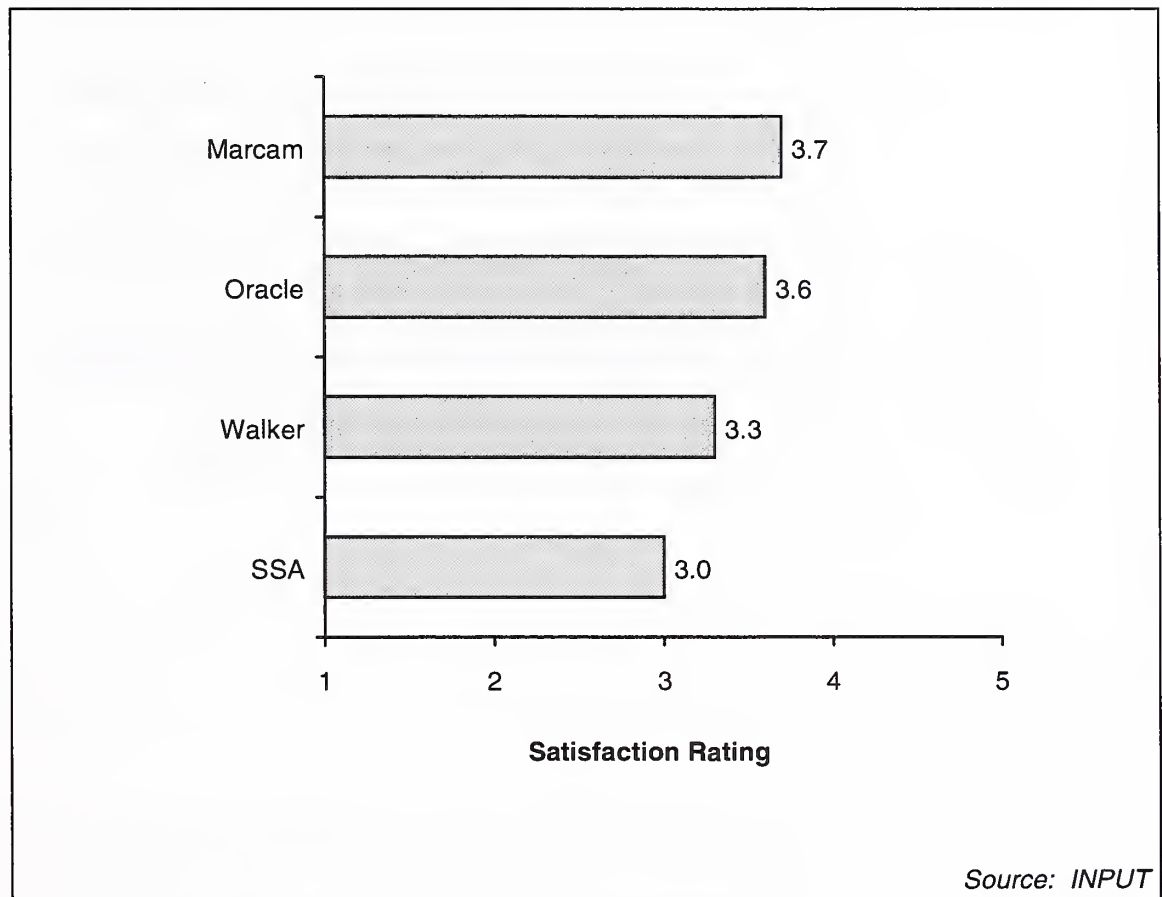
Weaknesses reported for SAP enterprise applications included:

- Its high resource usage difficulty of implementation
- Its reporting capabilities.

Exhibit IV-5 lists those EAS vendors with whom buyers expressed a relatively low level of satisfaction.

Exhibit IV-5

### Satisfaction with EAS Software: Lower Satisfaction



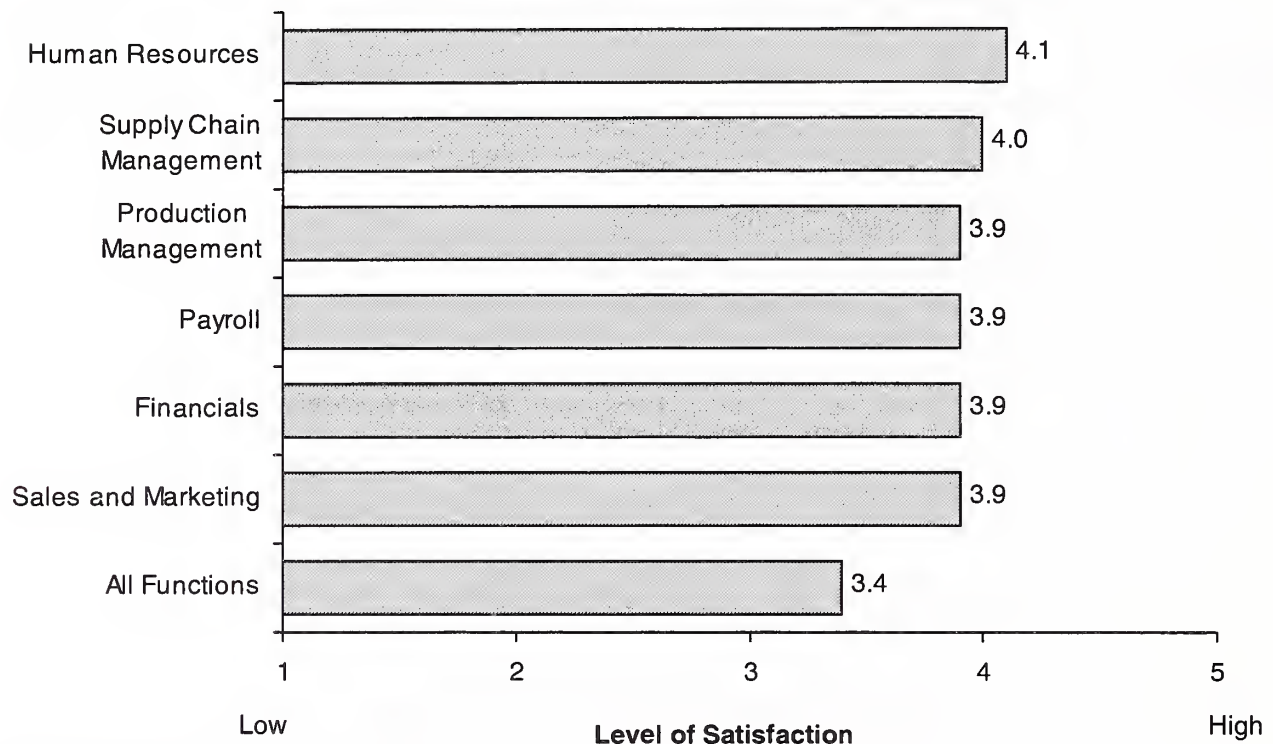
Buyers expressed lower levels of satisfaction with the originally more proprietary products such as SSA and Walker.

Buyers also expressed a relatively low level of satisfaction with Oracle enterprise applications.

Exhibit IV-6 lists the satisfaction with the module implemented for each of a number of functional areas.

Exhibit IV-6

### Satisfaction with EAS Software by Function



Sample of 24 IT Directors. Standard Error = 0.2

Source: INPUT

Overall satisfaction levels are high. However, the level of satisfaction appears to be low for integrated enterprise application solutions, suggesting a strong need for improved functionality in a number of areas or improved ability to integrate with other specialist best of breed products.

Exhibit IV-7 lists the profile of satisfaction with integrated systems covering all major functional areas.

Exhibit IV-7

### Satisfaction with EAS Software: Integrated System

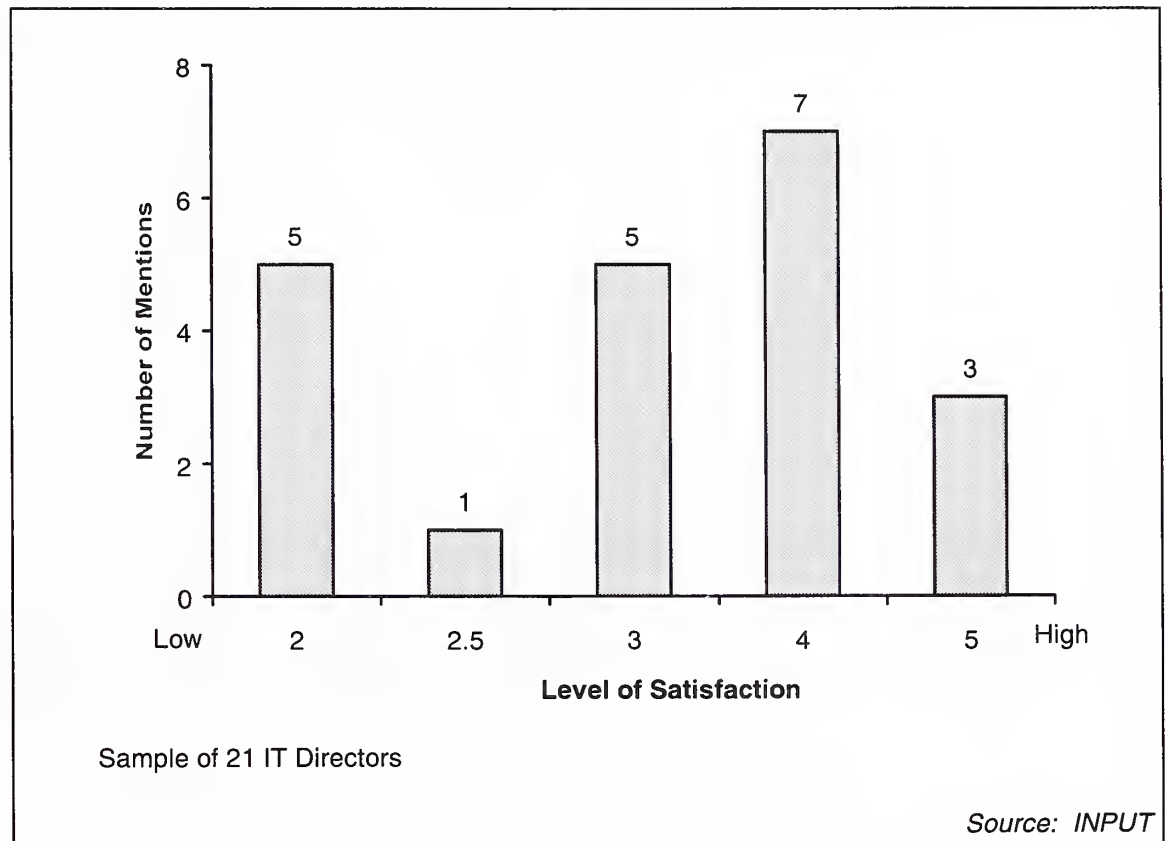




Exhibit IV-8 lists the profile of satisfaction with products supporting the financials function. Respondents ranked their satisfaction on a scale of 1 to 5. The vertical axis shows the number of mentions of each rating.

Exhibit IV-8

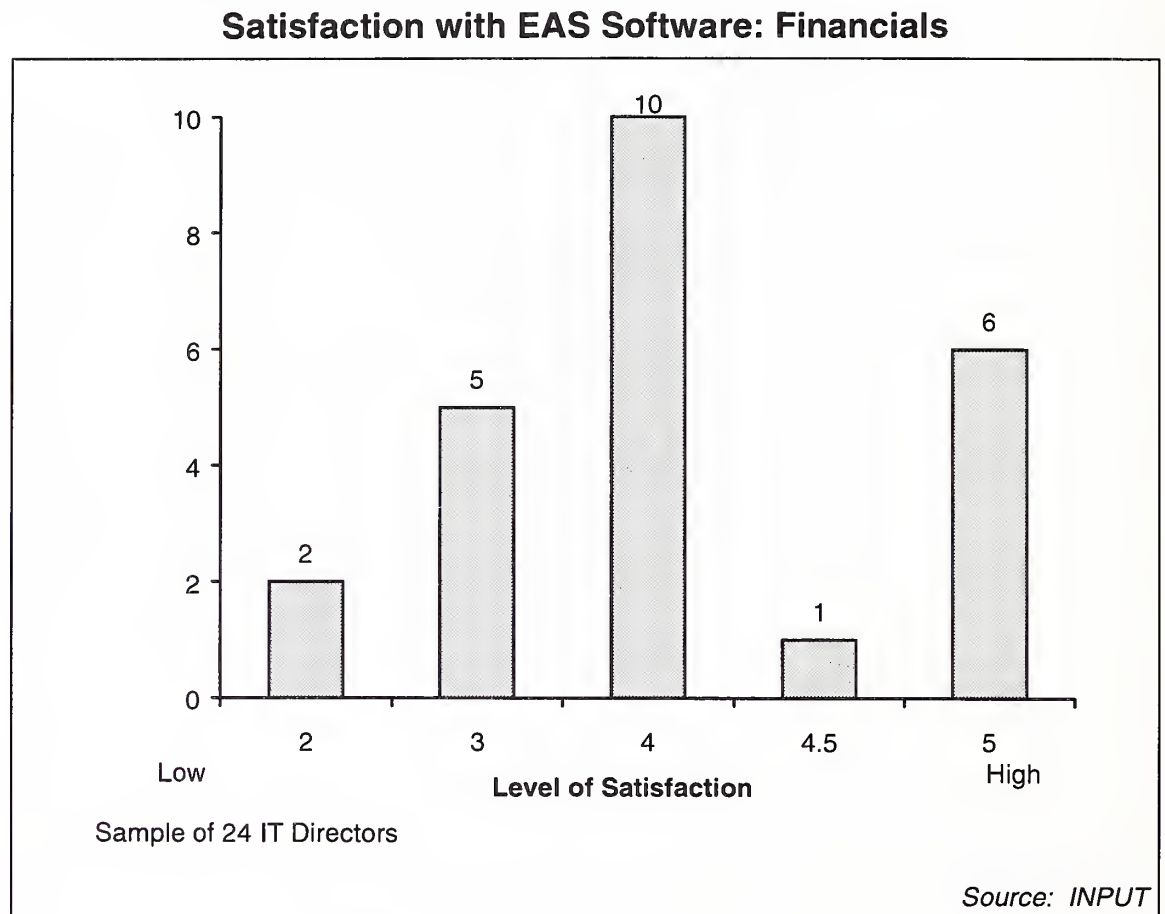


Exhibit IV-9 lists the profile of satisfaction with products supporting the payroll function. Respondents ranked their satisfaction on a scale of 1 to 5. The vertical axis shows the number of mentions of each rating.

Exhibit IV-9

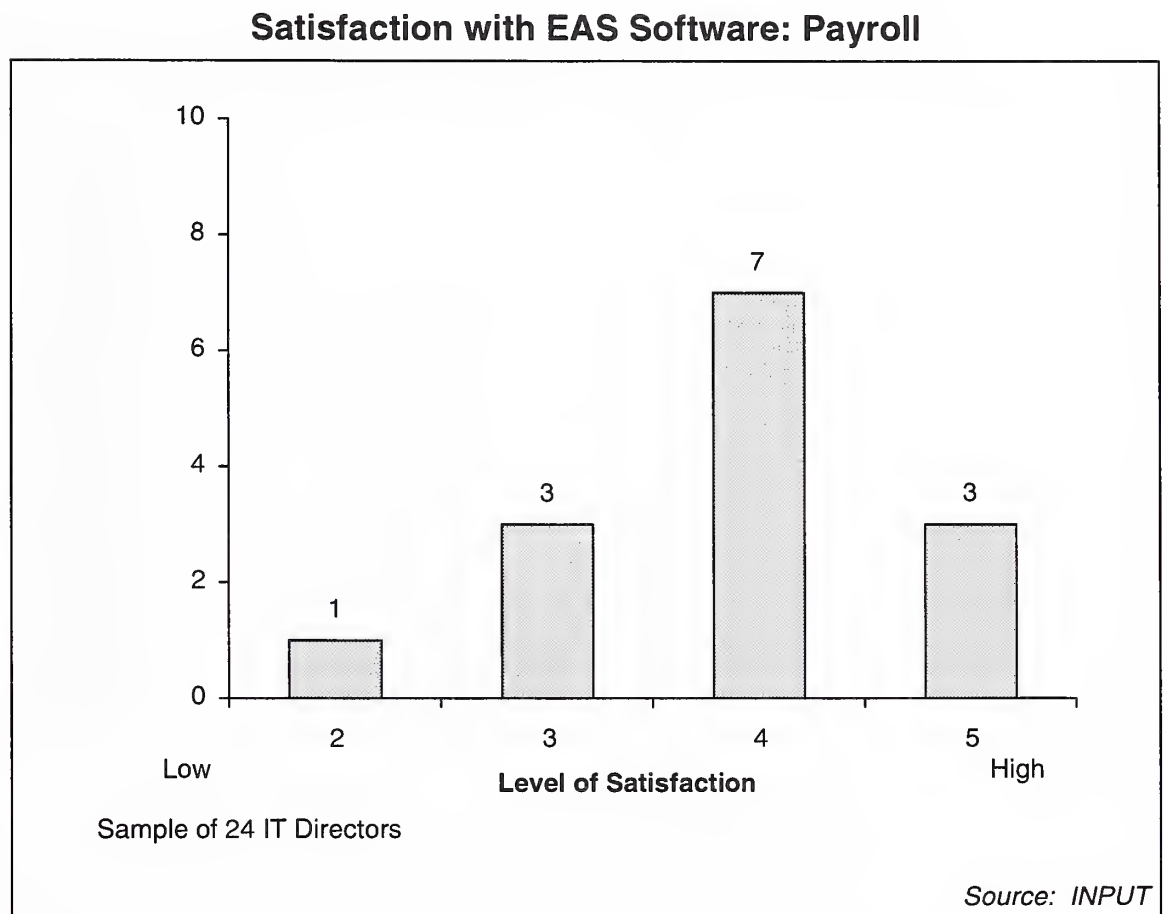


Exhibit IV-10 lists the profile of satisfaction with products supporting the human resources function. Respondents ranked their satisfaction on a scale of 1 to 5. The vertical axis shows the number of mentions of each rating.

Exhibit IV-10

### Satisfaction with EAS Software: Human Resources



Exhibit IV-11 lists the profile of satisfaction with products supporting the sales and marketing function. Respondents ranked their satisfaction on a scale of 1 to 5. The vertical axis shows the number of mentions of each rating.

Exhibit IV-11

### Satisfaction with EAS Software: Sales & Marketing

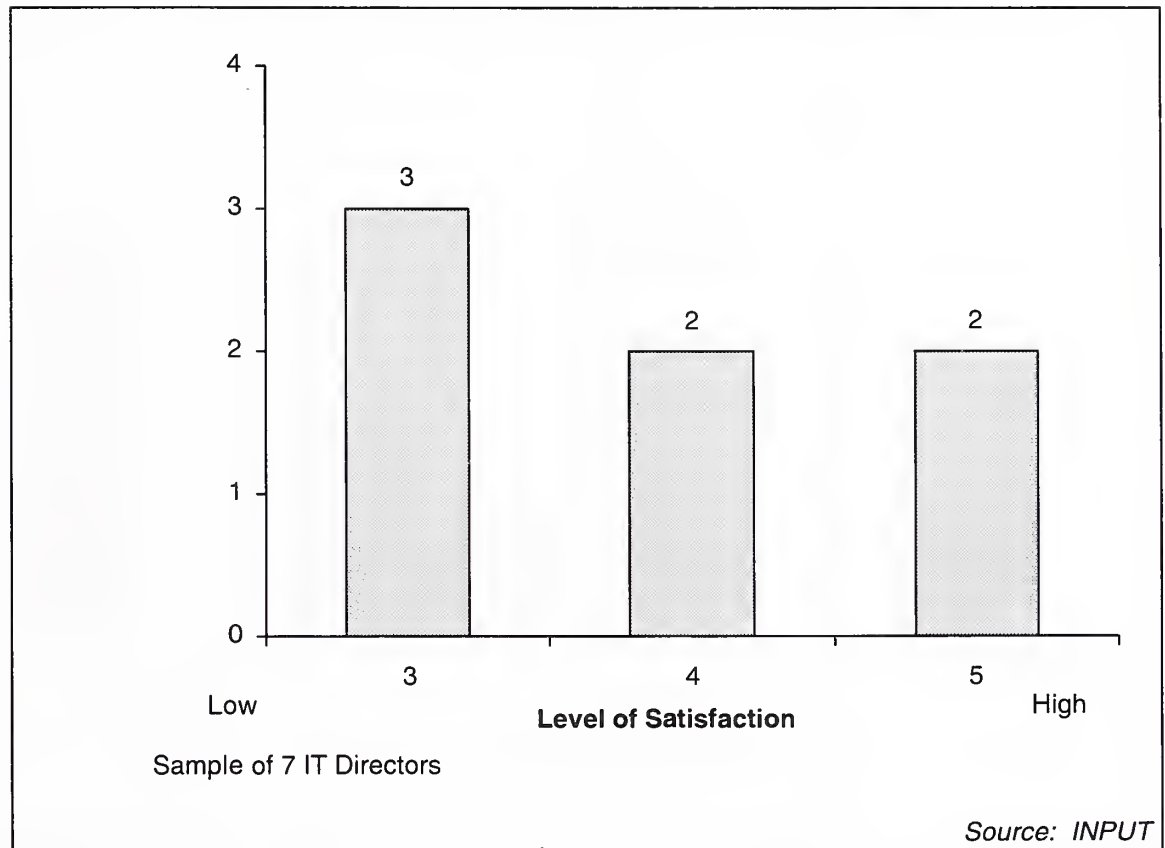


Exhibit IV-12 lists the profile of satisfaction with products supporting the supply chain management function. Respondents ranked their satisfaction on a scale of 1 to 5. The vertical axis shows the number of mentions of each rating.

Exhibit IV-12

### Satisfaction with EAS Software: Supply Chain Management

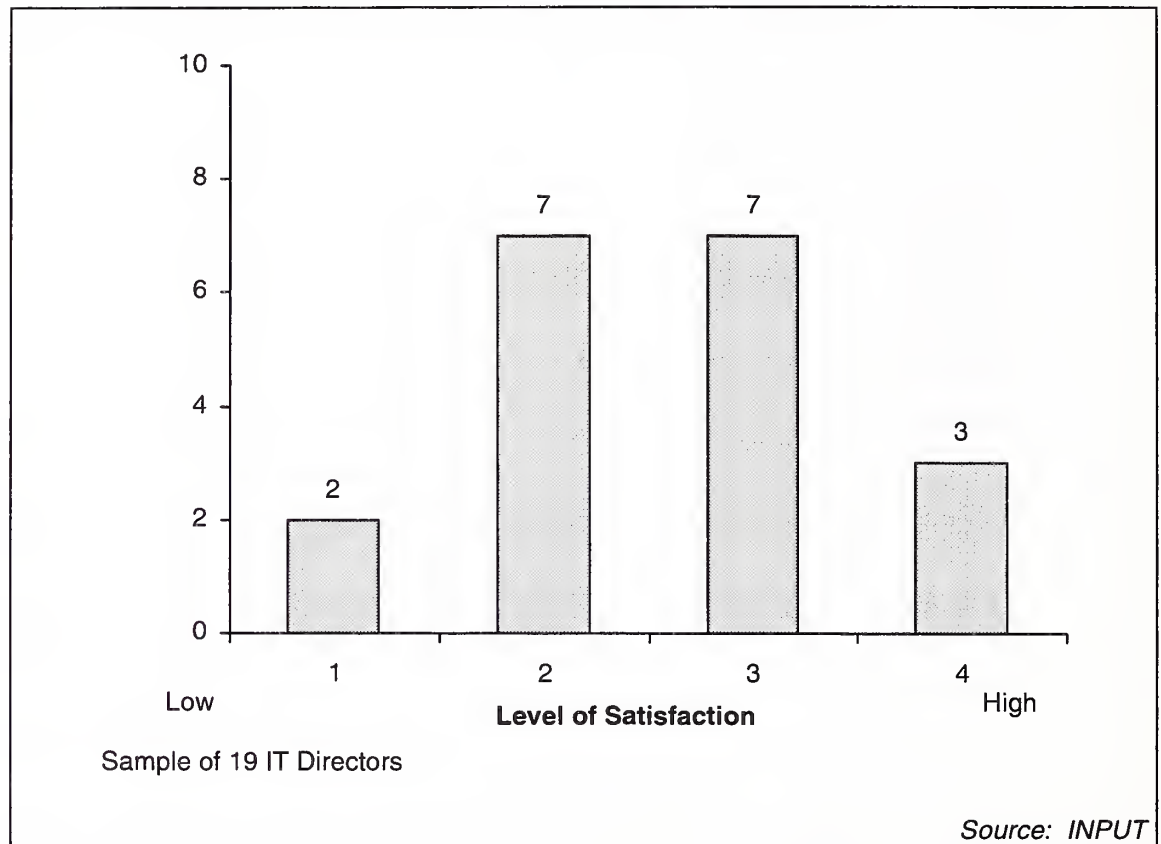




Exhibit IV-13 lists the profile of satisfaction with products supporting the production management function. Respondents ranked their satisfaction on a scale of 1 to 5. The vertical axis shows the number of mentions of each rating.

Exhibit IV-13

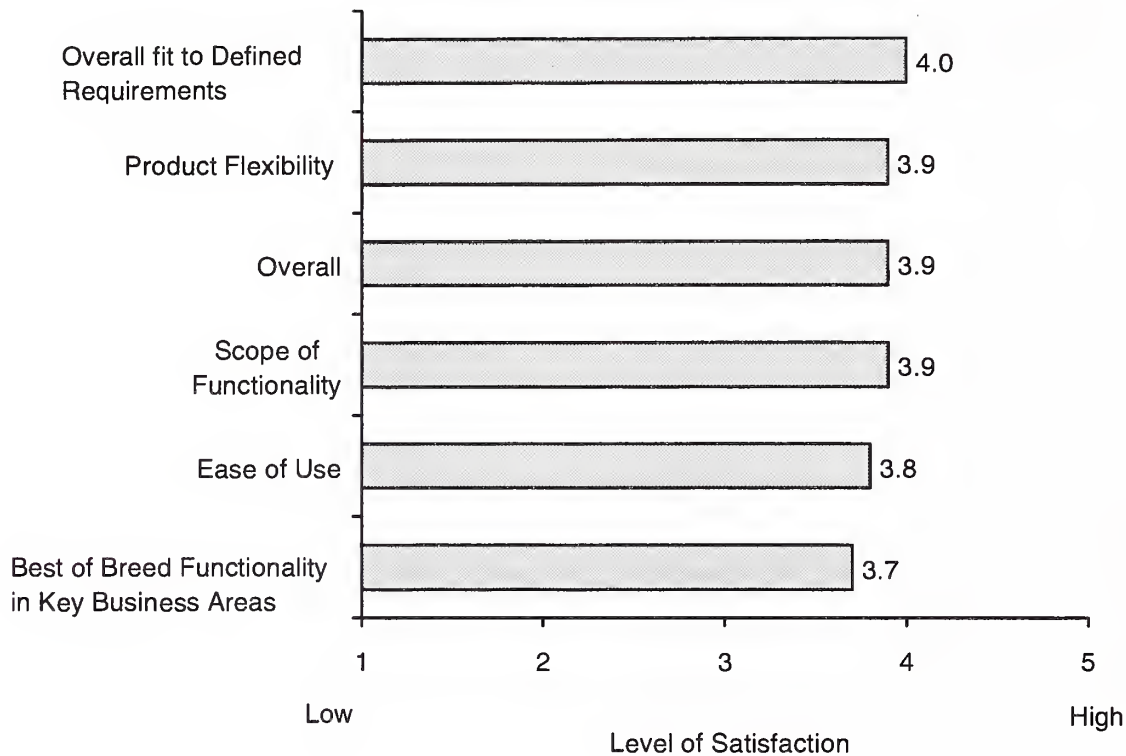
### Satisfaction with EAS Software: Production Management



Exhibit IV-14 lists the elements of the main enterprise application solution with which buyers are most satisfied.

Exhibit IV-14

### Satisfaction with EAS Solution: High Satisfaction



Sample of 25 IT Directors

Source: INPUT

Overall enterprise application solutions are seen to fit defined requirements well.

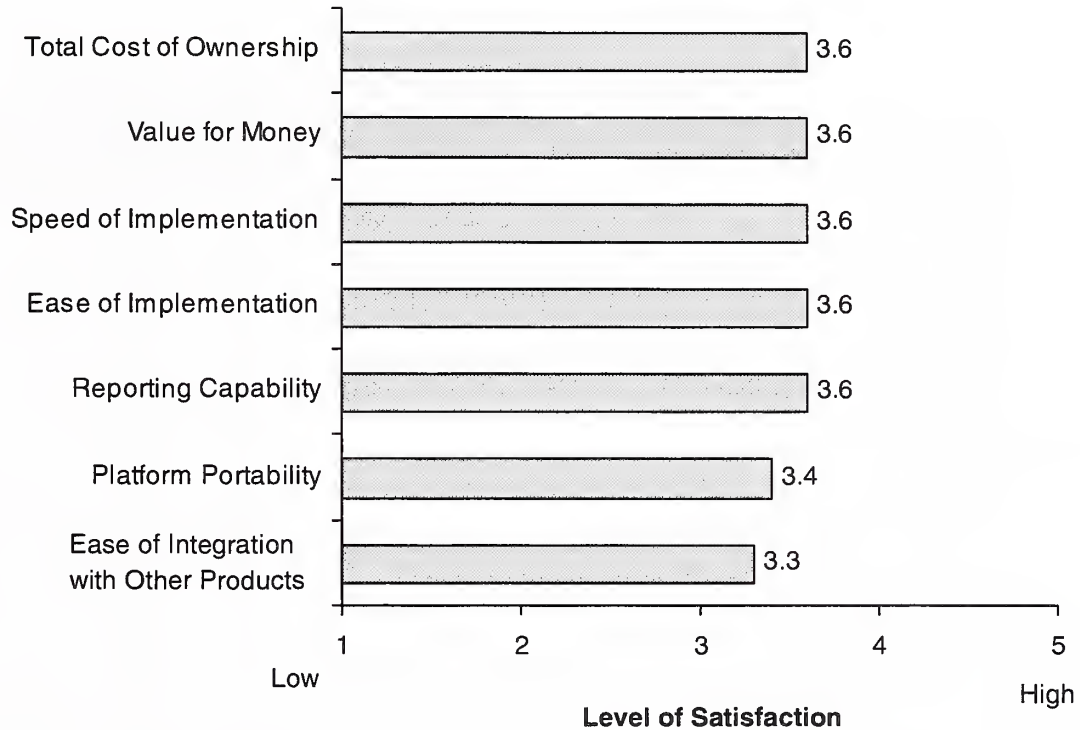
The key challenges for enterprise application solution vendors remain the needs to:

- Improve the ease of integration with complementary products
- Improve the speed and ease with which these products can be implemented.

Exhibit IV-15 lists the elements of the main enterprise application solution with which buyers are least satisfied.

Exhibit IV-15

### Satisfaction with EAS Solution: Low Satisfaction



Sample of 25 IT Directors Standard Error = 0.2

Source: INPUT

**C****Satisfaction with Services**

Exhibit IV-16 shows the difference between importance and satisfaction for a number of aspects of enterprise application implementation and support through external services providers.

Exhibit IV-16

**Satisfaction with External Service Provision**

	Importance	Satisfaction	Difference
Ongoing support	4.5	3.1	1.4
Meeting deadlines	4.3	3.0	1.3
Breadth and depth of vendor skills	4.3	3.7	0.6
Training/skills transfer	4.2	3.8	0.4
Availability and cooperation of vendor personnel	4.1	3.8	0.3
Meeting cost/price calculations	4.0	3.2	0.8
Industry sector/business knowledge	3.9	3.5	0.4
Business process reengineering	3.1	3.3	-0.2
Change management	3.1	3.5	-0.4

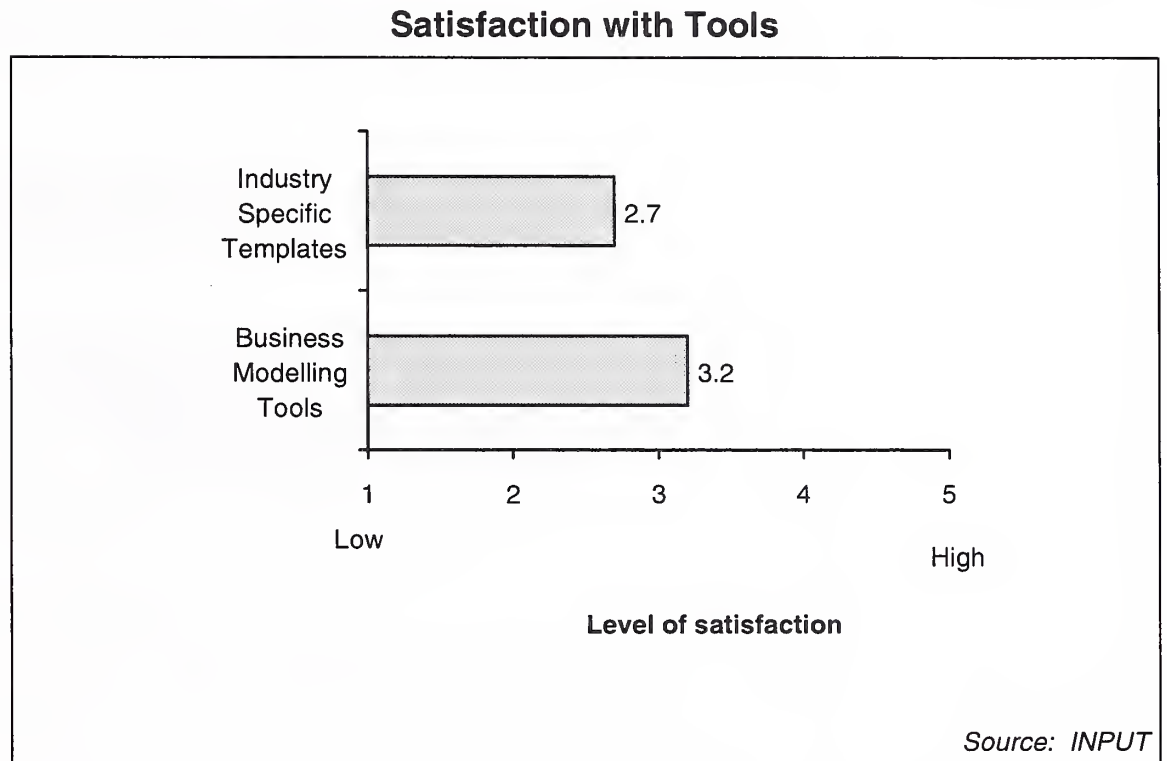
Source: INPUT

There is perceived to be scope for considerable improvement in the performance of external service partners in the U.S. The principal areas for improvement are:

- Ongoing support.
- Deadlines.
- Meeting cost/price calculations.

Exhibit IV-17 lists the levels of satisfaction of organizations with implementation techniques used by external services vendors.

Exhibit IV-17



The need to adapt enterprise application solutions to specific industries and clients remains a challenge for vendors. The current level of satisfaction with both industry-specific templates and generic business modeling tools is low.

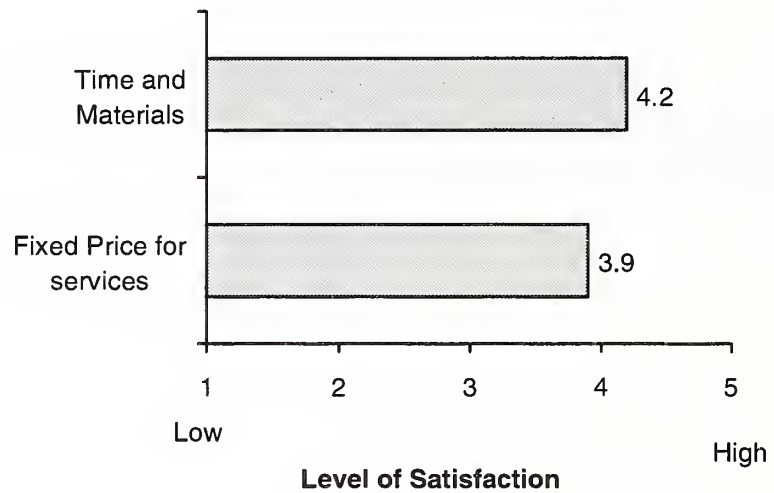
In terms of pricing, buyers prefer a fixed price implementation but are currently highly satisfied with both fixed price and time and materials approaches. The acceptance of value-based pricing approaches is increasing in the U.S.



Exhibit IV-18 lists the level of satisfaction with the various contractual approaches used for enterprise application implementation.

Exhibit IV-18

### Satisfaction with Contractual Approach



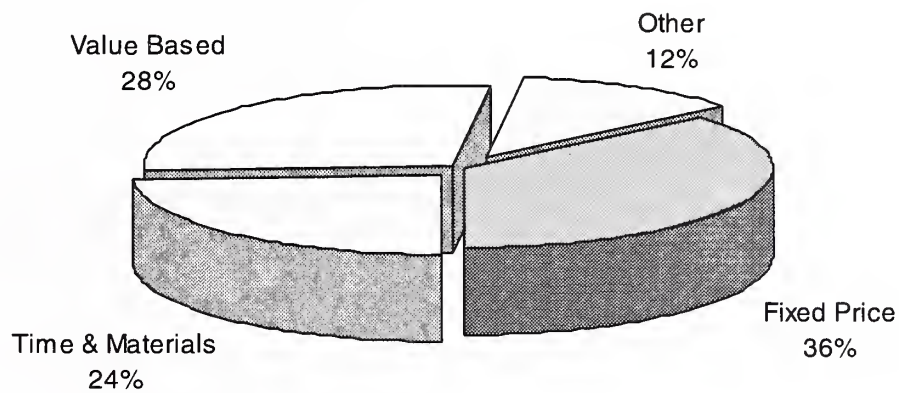
Sample of 25 IT Directos. Standard error = 0.2

Source: INPUT

Exhibit IV-19 shows the relative extent to which potential buyers favor each of the various forms of project pricing.

Exhibit IV-19

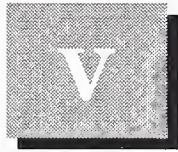
### Form of Contract Pricing Favored



Sample of 25 IT Directors

Source: INPUT

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## Purchasing Process

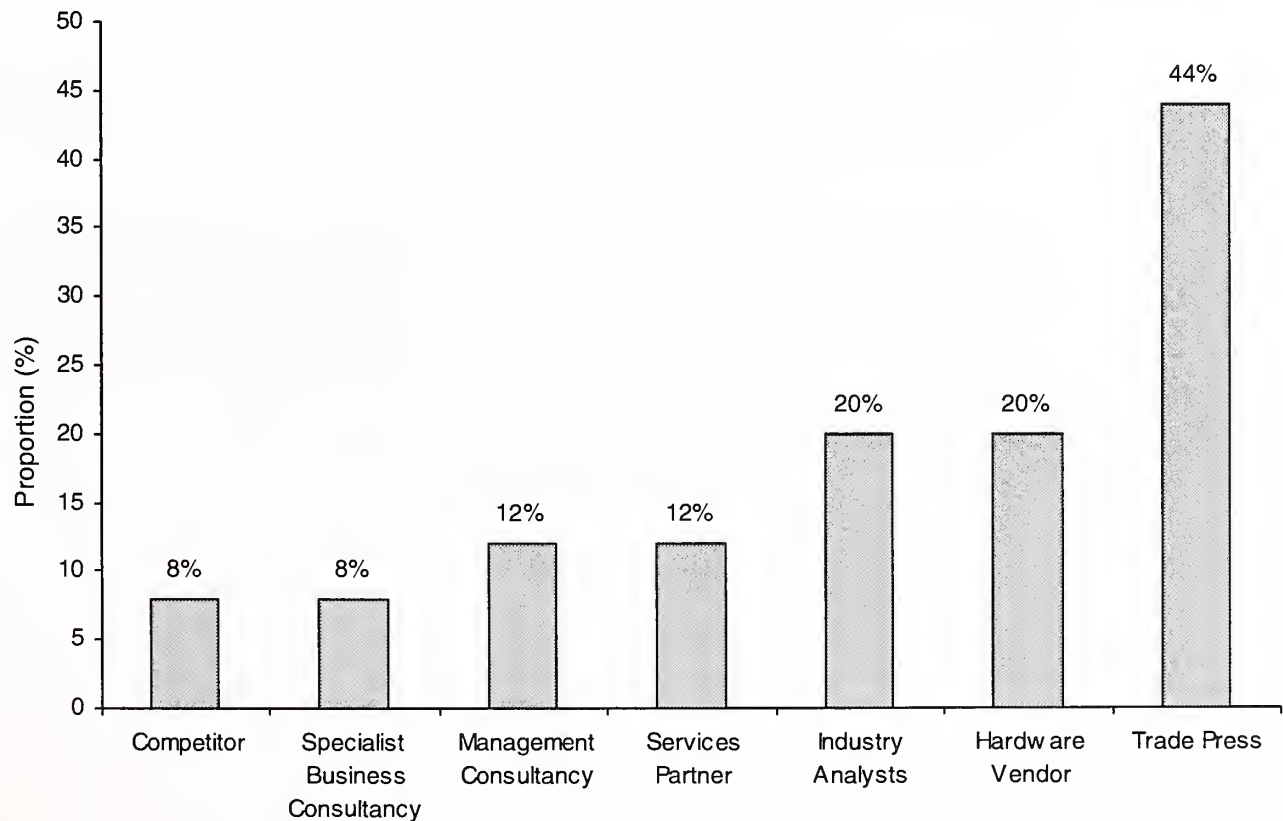
### A

#### Product Purchasing

Exhibit V-1 shows the relative extent to which organizations found out about their main enterprise application through a number of potential sources of information.

Exhibit V-1

#### Source of Product Knowledge



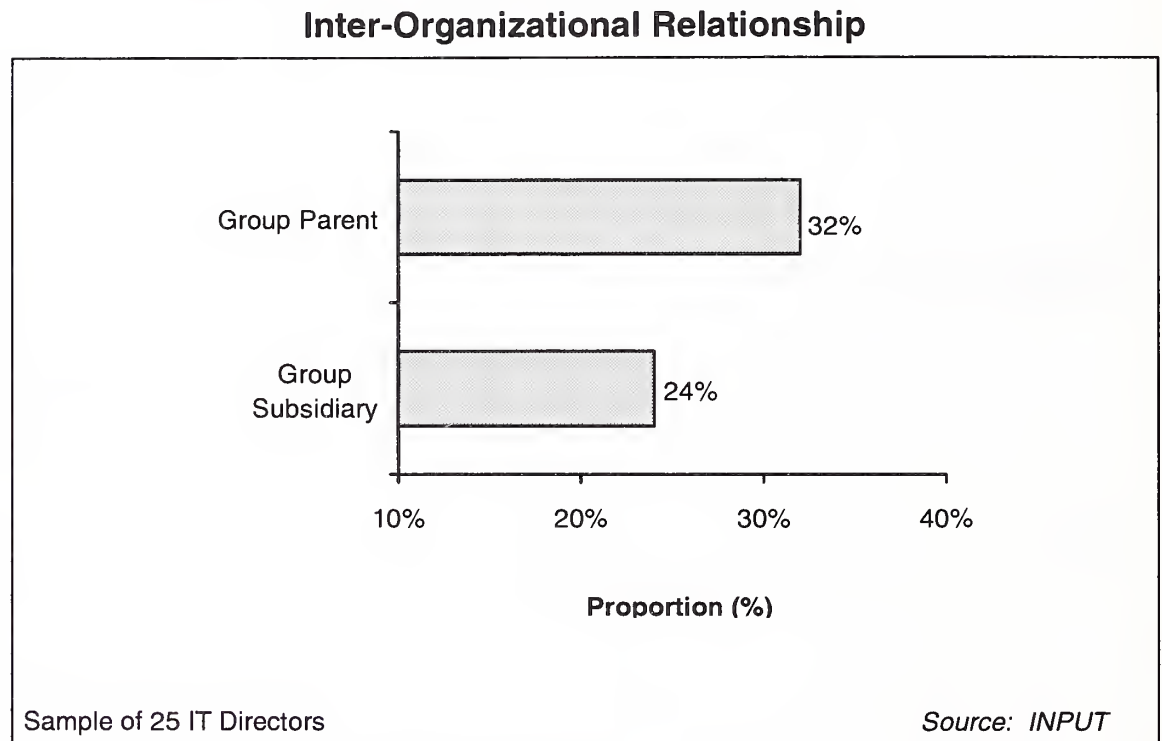
Sample of 24 IT Directors

Source: INPUT

The trade press appears to be the major influence in establishing awareness of individual enterprise application solutions.

Exhibit V-2 shows the relationship between the respondent's organization and other units that use the same enterprise application solution.

Exhibit V-2



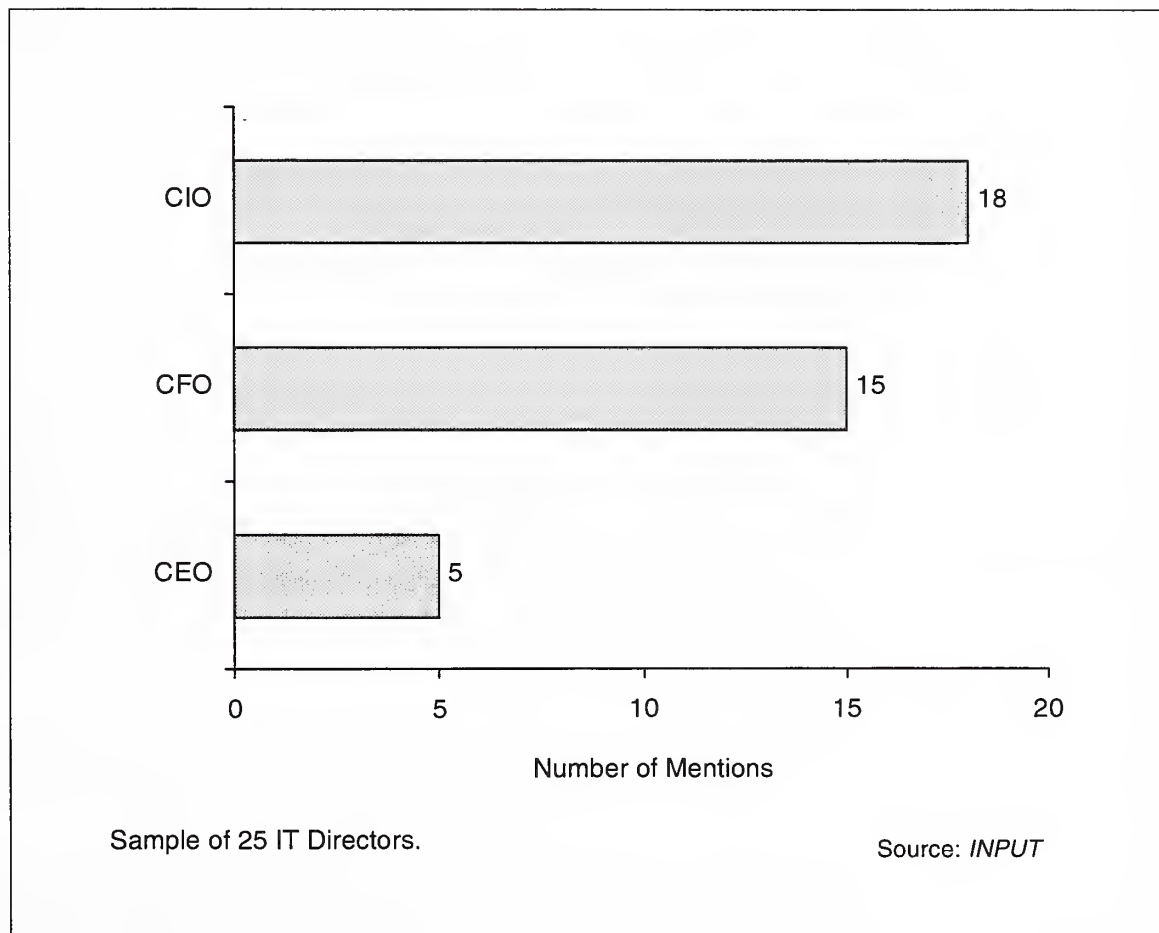
In the majority of organizations surveyed, the principal enterprise application solution was used across multiple subsidiaries. Organizations are increasingly standardizing their use of enterprise application solution across group subsidiaries, to facilitate sharing and consolidation of information.



Exhibit V-3 lists the relative levels of influence of key decision-makers in selecting the chosen enterprise application product.

Exhibit V-3

### Inter-Organizational Relationship

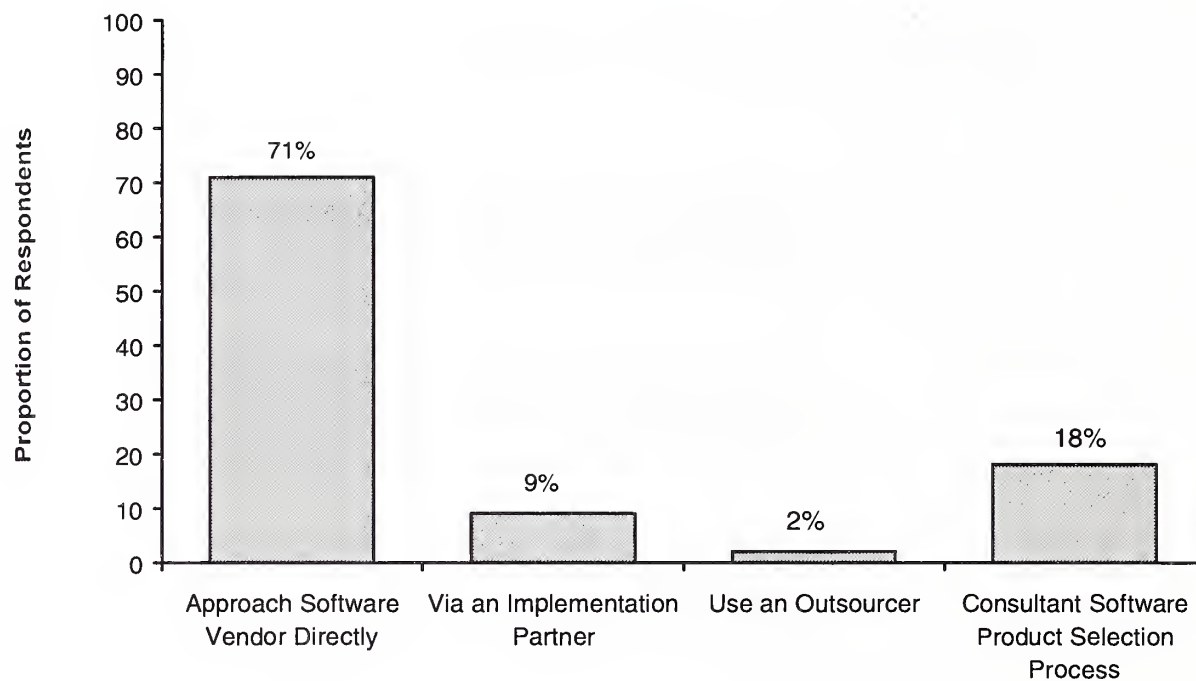


The CEO seems to have a low level of influence in purchase decisions, with CIOs and CFOs being the principal decision makers in the selection of an enterprise application solution.

Exhibit V-4 shows the purchasing channel used to purchase the main enterprise application.

Exhibit V-4

### Purchasing Channel



Sample of 25 IT Directors

Source: INPUT

In the past, buyers tended to approach the software vendor direct rather than through an implementation partner. Even though enterprise application solutions are increasingly being targeted at the SME marketplace, it is probable that the majority of buyers will continue to approach the software vendor directly.

This suggests that the choice of implementation partner is taken separately from the choice of solution and is a secondary decision.

Exhibit V-5 lists the likely sources of enterprise application solutions to be used by potential buyers.

Exhibit V-5

### Likely Source of EAS Solution

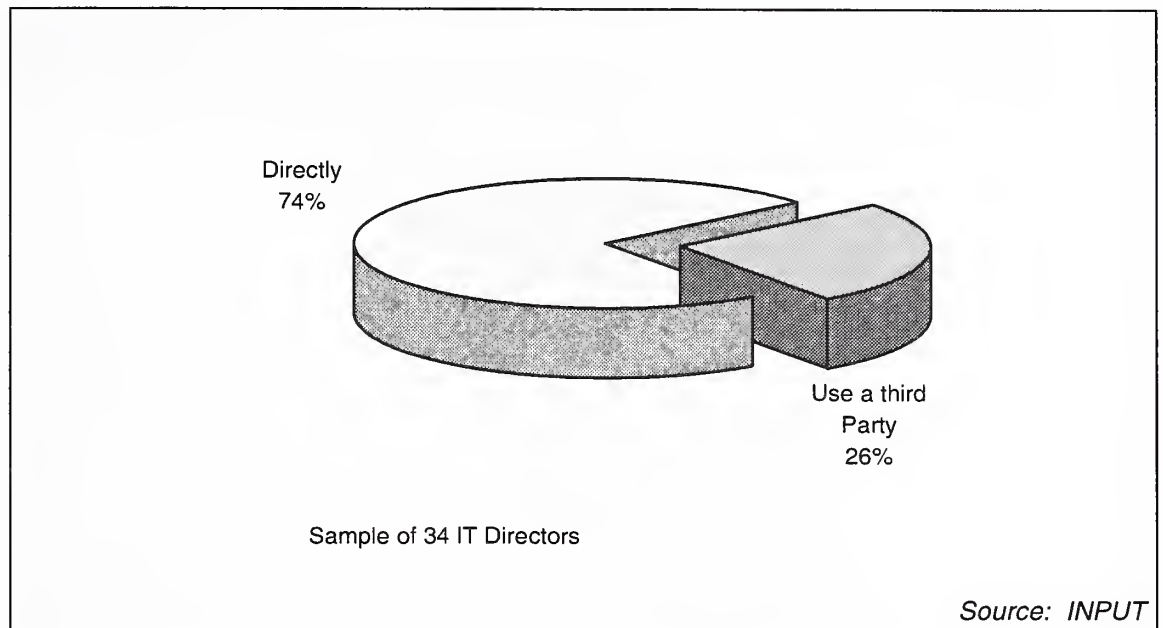
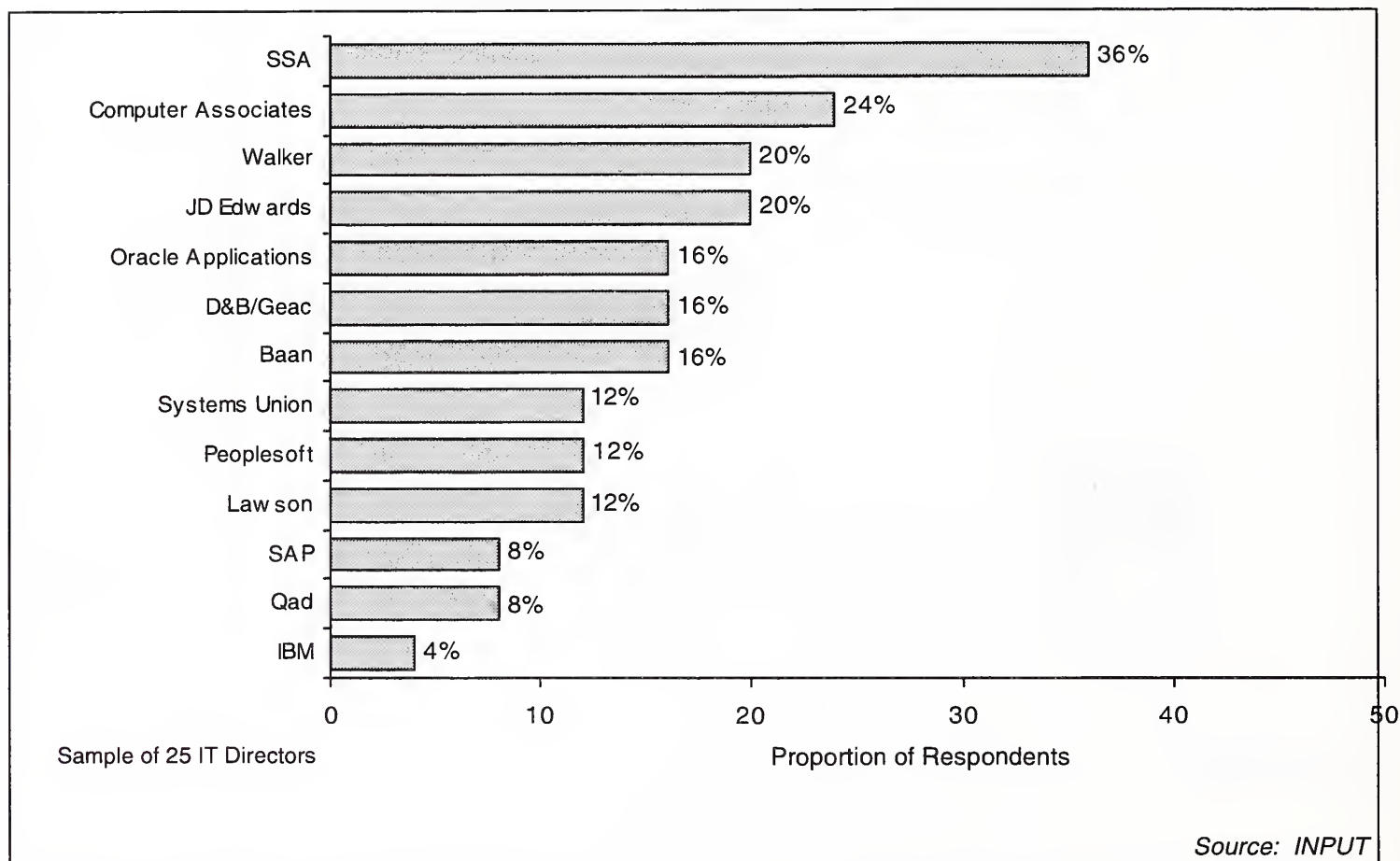


Exhibit V-6 lists the products/vendors considered when selecting the organization's current enterprise application solution.

Exhibit V-6

### EAS Solutions Considered



In the case of past purchase decisions, the level of awareness of vendors such as SAP and Baan was relatively low. The main enterprise application solution vendors considered were SSA and Computer Associates.

However, while the awareness of Walker and Computer Associates remains high, there is now a much greater awareness of Oracle, PeopleSoft and SAP. The level of awareness of JD Edwards and Baan shows room for improvement if they are to maintain their presence as potential leading enterprise application solution vendors in the U.S.

Exhibit V-7 lists the extent to which buyers have heard of each of a range of potential enterprise-wide business application software vendors.

Exhibit V-7

### Level of Awareness of Vendors

Vendor	Number of mentions
Oracle Applications	24
Peoplesoft	21
SAP	19
Walker	16
Computer Associates	15
D&B/Geac	15
Lawson	14
IBM	12
JD Edwards	8
Systems Union	8
Baan	6
Qad	6
SSA	6



Exhibit V-8 lists the extent to which buyers would consider using each of a range of potential enterprise-wide business application software vendors.

Exhibit V-8

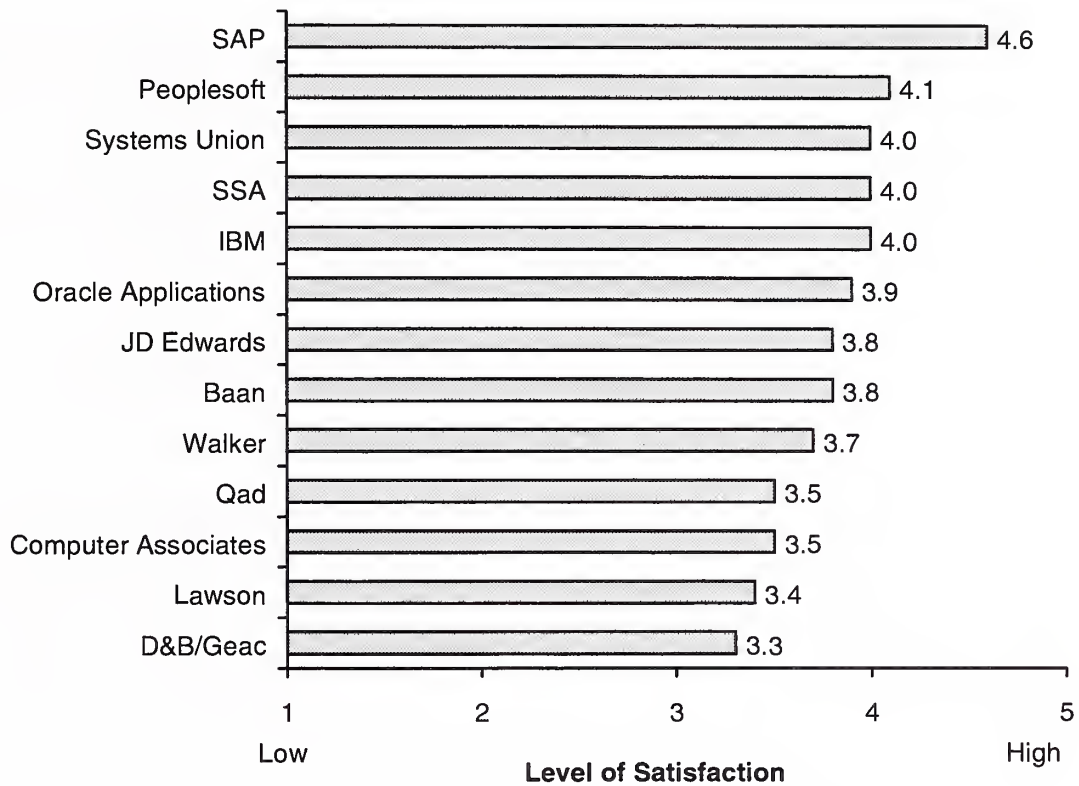
### Willingness to Consider Using Vendors

Vendor	Number of mentions
Oracle Applications	16
Peoplesoft	15
Walker	12
SAP	10
Computer Associates	9
Lawson	9
D&B/Geac	6
Qad	6
IBM	5
Baan	4
JD Edwards	4
SSA	2
Systems Union	2

Exhibit V-9 lists the rating given to each of a number of vendors of enterprise-wide business application software by potential buyers.

Exhibit V-9

### Perception of Vendor



Sample of 35 IT Directors. Standard Error = 0.2

Source: INPUT

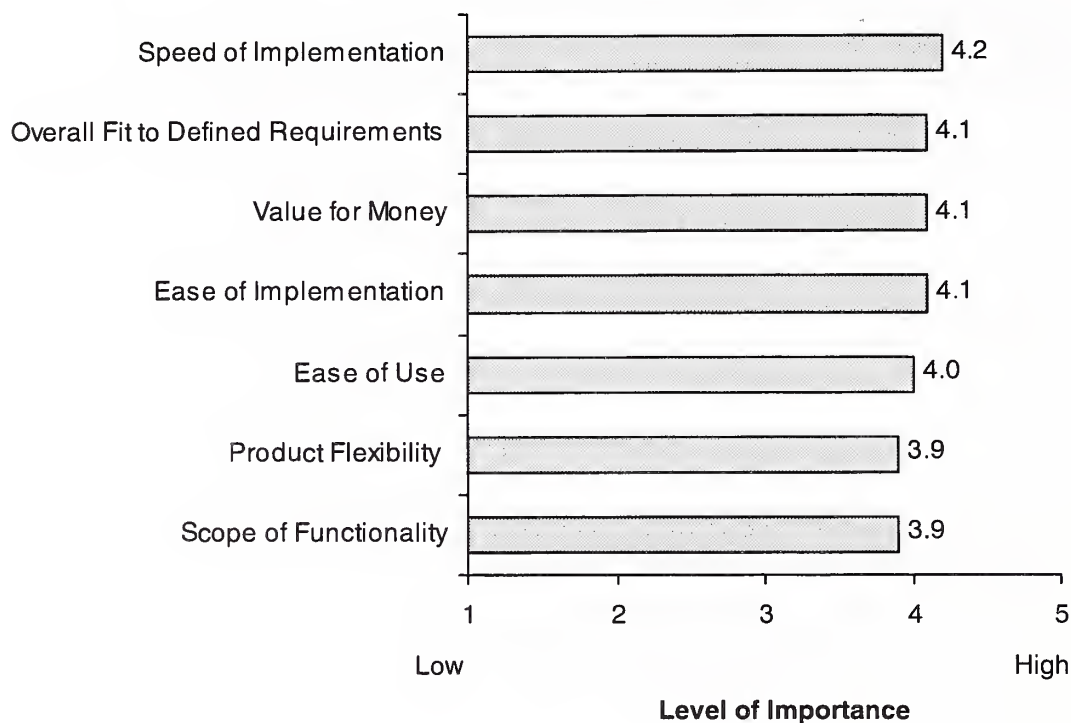
There is some mismatch between the level of satisfaction of existing clients and the perceptions of capability held by potential buyers. While, for example, Oracle and SSA were only moderately ranked in terms of capability by existing clients, they were highly ranked in terms of capability by potential purchasers.

Similarly, the capability of JD Edwards perceived by potential buyers lags behind its ranking from current clients.

Exhibit V-10 lists the importance of each of a number of potential selection criteria in choosing the current enterprise application.

Exhibit V-10

### Product Selection Criteria



Sample of 25 IT Directors. Standard Error = 0.2

Source: INPUT

The product selection criteria used by organizations that have purchased enterprise application solutions in the past are broadly similar to the selection criteria anticipated by future purchasers.

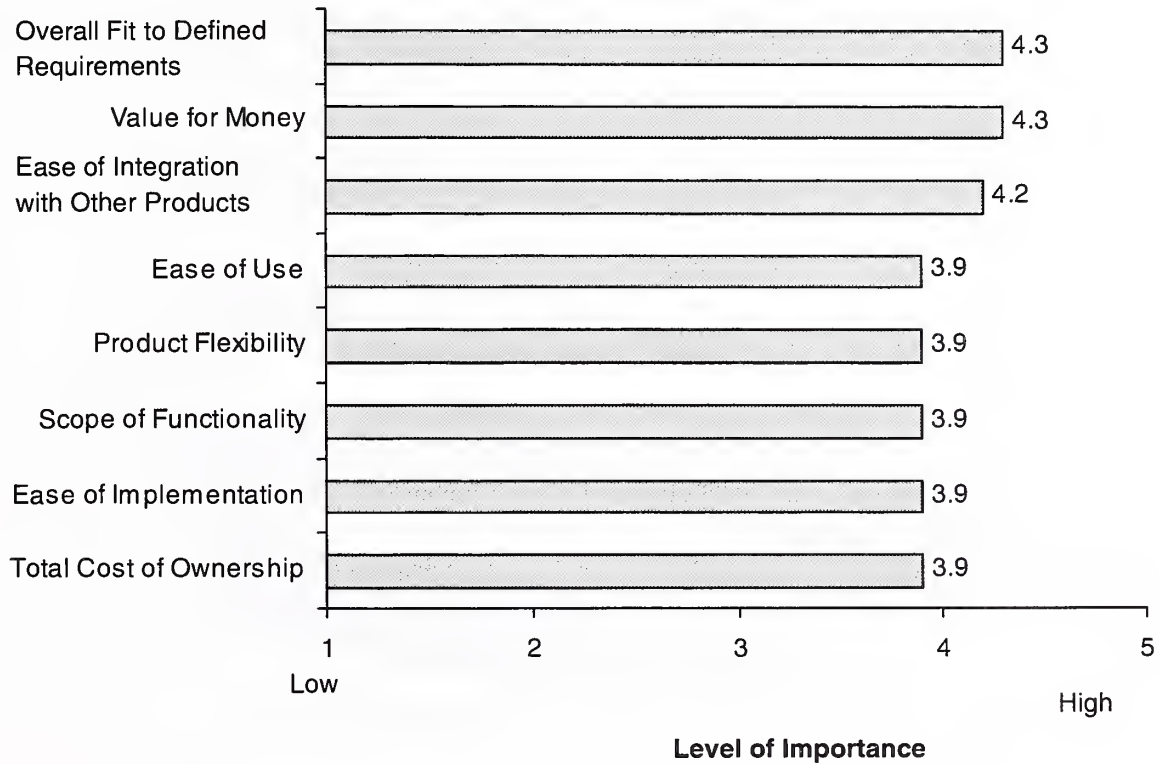
The major difference is the increasing importance attached to ease of integration with complementary products.

Buyers appear not to rely on an enterprise application solution having best of breed capability in all areas. Where appropriate, they would like to be able to integrate their principal enterprise application solution easily with complementary products offering specialized best of breed functionality.

Exhibit V-11 lists the most important selection criteria to potential buyers of enterprise application solutions.

Exhibit V-11

### Product Selection Criteria: High Importance



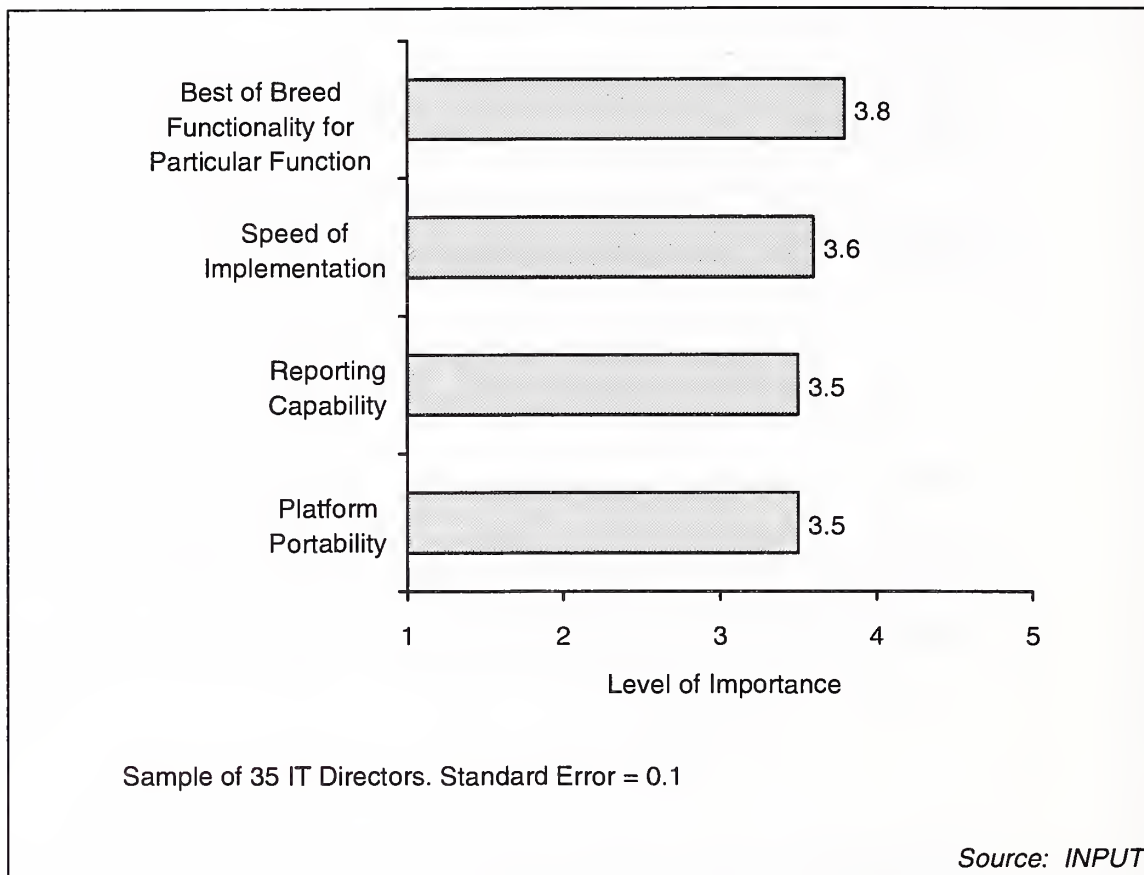
Sample of 35 IT Directors. Standard Error = 0.1

Source: INPUT

Exhibit V-12 lists the less important selection criteria to potential buyers of enterprise application solutions.

Exhibit V-12

**Product Selection Criteria: Low Importance**

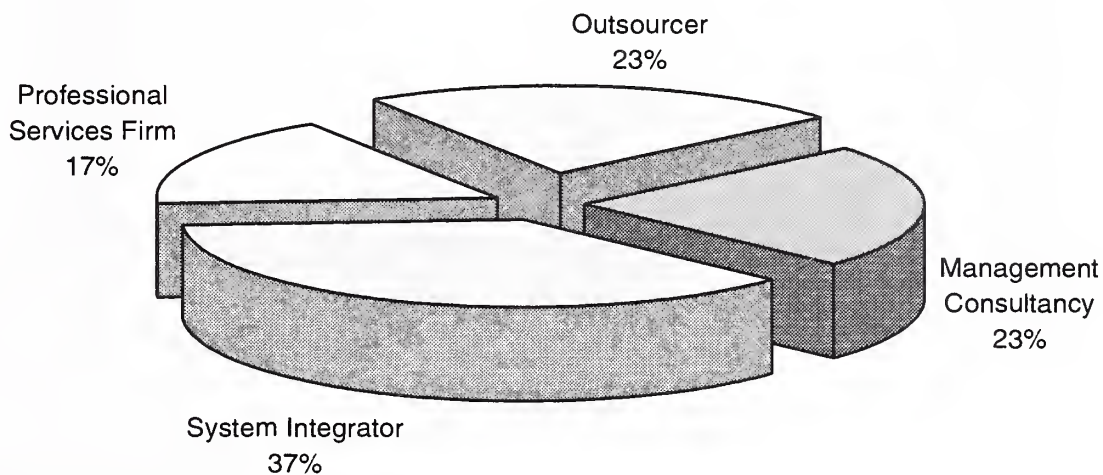




**B****Services Purchasing**

Exhibit V-13 shows the type of external IT services vendor that potential buyers intend to use to assist them in implementing their enterprise application.

Exhibit V-13

**Type of External Vendor to be Used**

Sample of 30 IT Directors

Source: INPUT

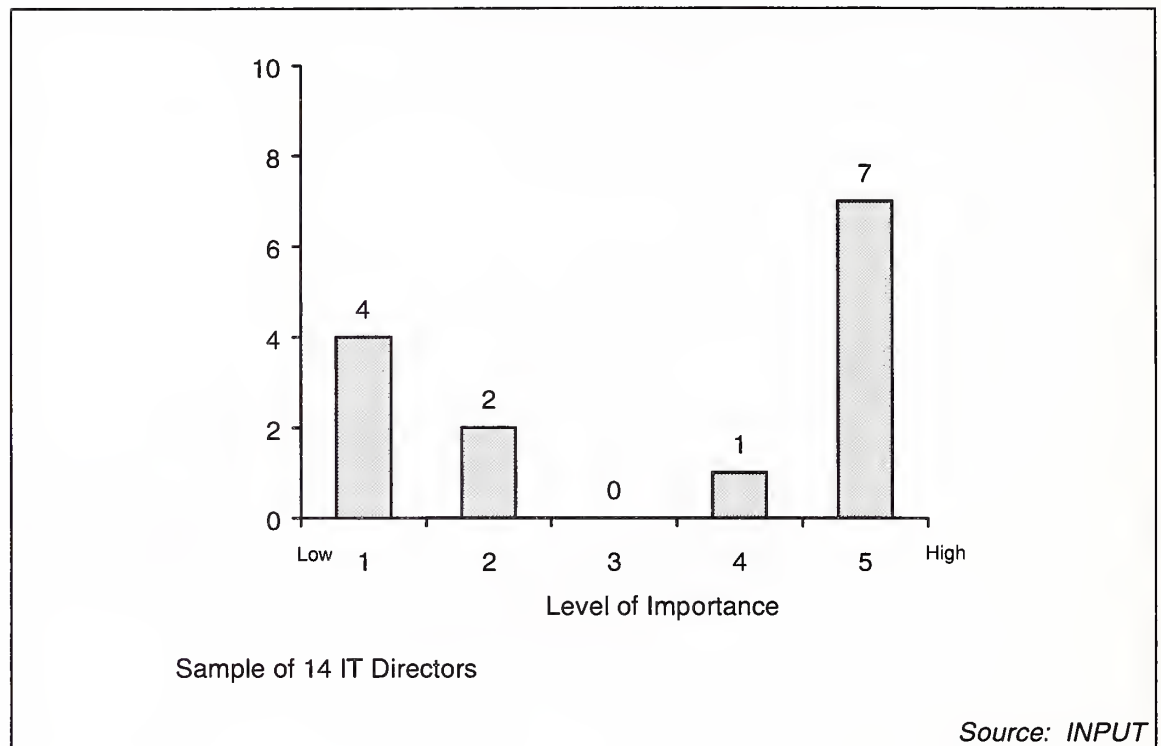
A broad mix of supplier types is favored, with systems integrators being more highly favored than professional services organizations and management consultancies. This may reflect a perception of the importance of integrating the enterprise application solution both with the organization's physical IT infrastructure and with complementary applications. It may also reflect the high level of ability required to apply the enterprise application solution to the client's specific business need.

In addition, a high level of organizations are prepared to use outsourcers to assist them in implementing their enterprise application solution.

Exhibit V-14 shows the profile of importance that the services provider was an implementation partner of the chosen software vendor. Respondents ranked their satisfaction on a scale of 1 to 5. The vertical axis shows the number of mentions of each rating.

Exhibit V-14

### Importance of Service Vendor Partnership with Software Vendor



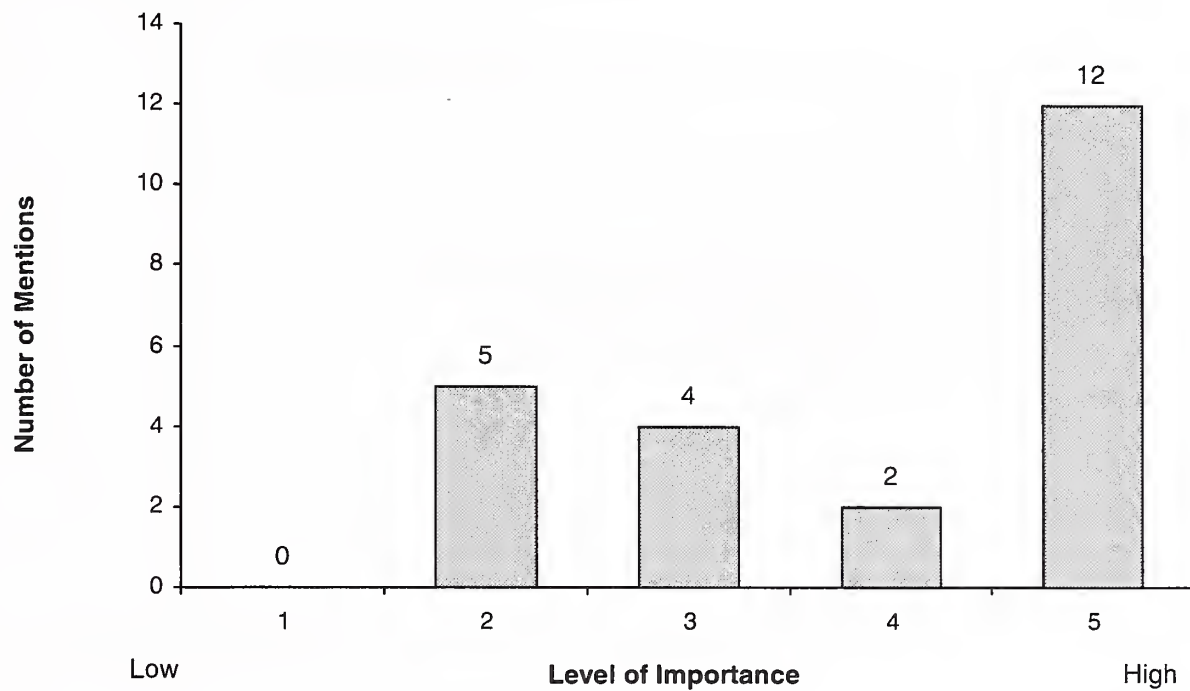
As seen earlier, it is apparent that buyers tend to choose their enterprise application solution irrespective of their implementation partner. Clearly, it is very important that implementation partners are seen to have strong expertise in the particular solution chosen and to have close links with the software product vendor.

This closeness between solution vendor and services partner will become even more important in the future.

Exhibit V-15 shows the perceived profile of importance to potential buyers of the services provider being an implementation partner of the software product vendor.

Exhibit V-15

### Importance of Partnership



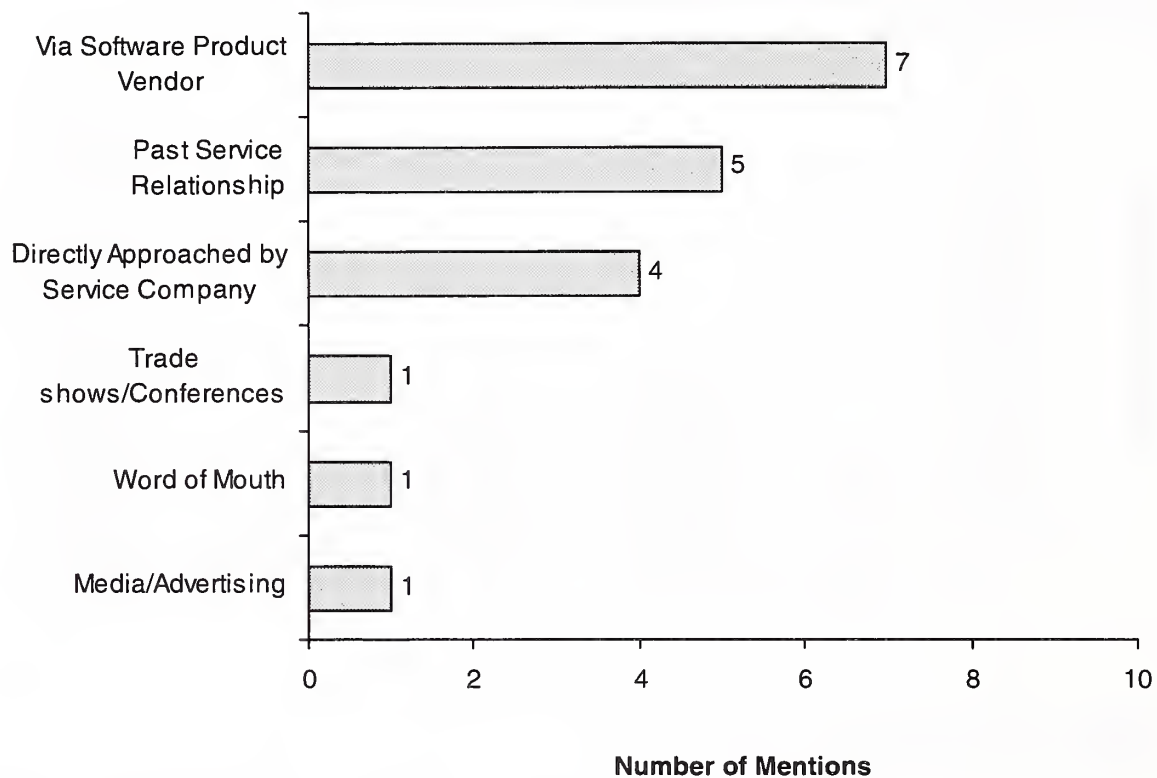
Sample of 35 IT Directors

Source: INPUT

Exhibit V-16 shows the extent to which organizations found out about their enterprise application services partner through each of a variety of sources.

Exhibit V-16

### Source of Information on Services Vendor



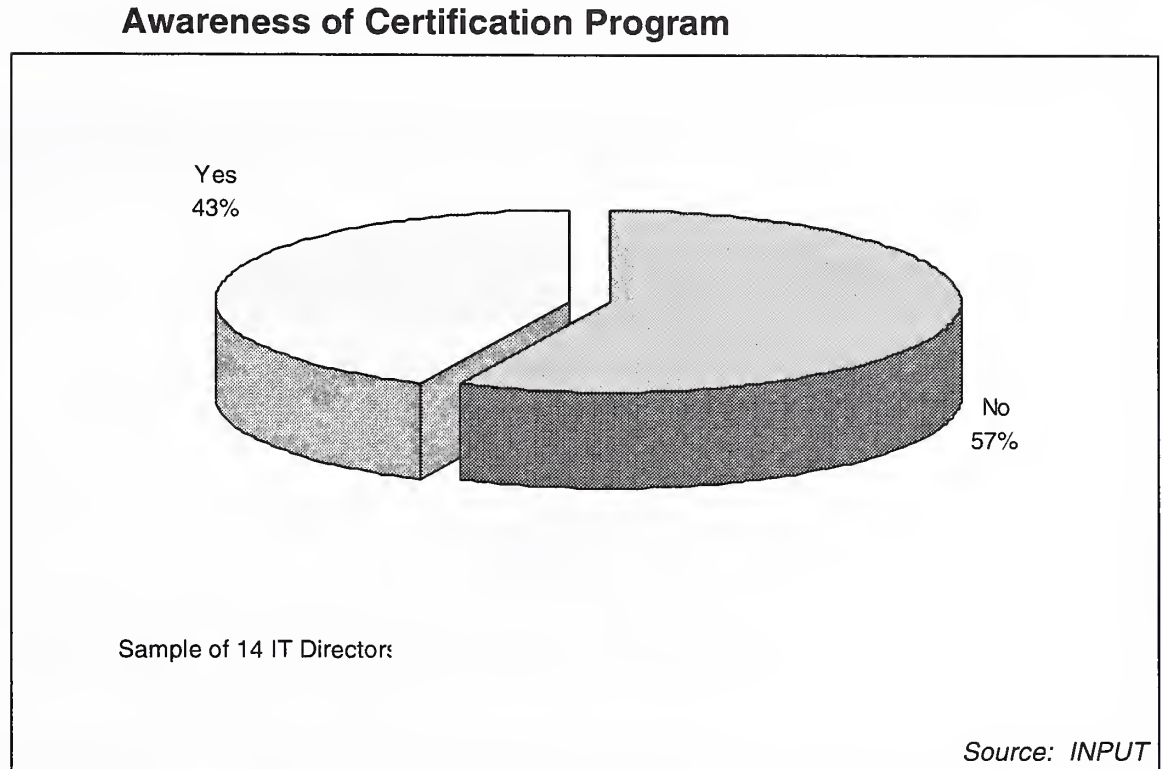
Sample of 13 IT Directors.

Source: INPUT

Software product vendors are the major source of awareness for services vendors in the enterprise application solution implementation market.

Exhibit V-17 shows the proportion of organizations that were aware of their software product vendor's certification program.

Exhibit V-17



In the past, buyers have tended to have relatively low levels of awareness of certification programs relying instead on knowledge of a close relationship between the services partner and the software product vendor.

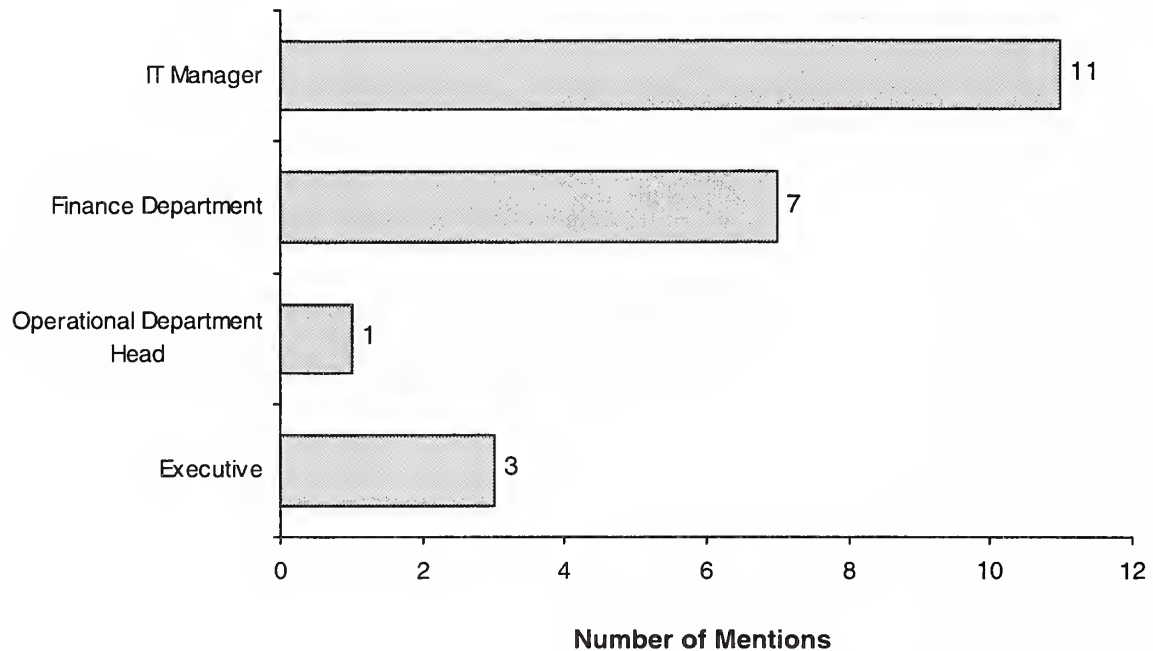
However, as the market matures, the importance of partner certification is steadily increasing.



Exhibit V-18 shows the relative importance of buyer personnel in services partner selection.

Exhibit V-18

### Decision-Makers for Services Partners



Sample of 25 IT Directors

Source: INPUT

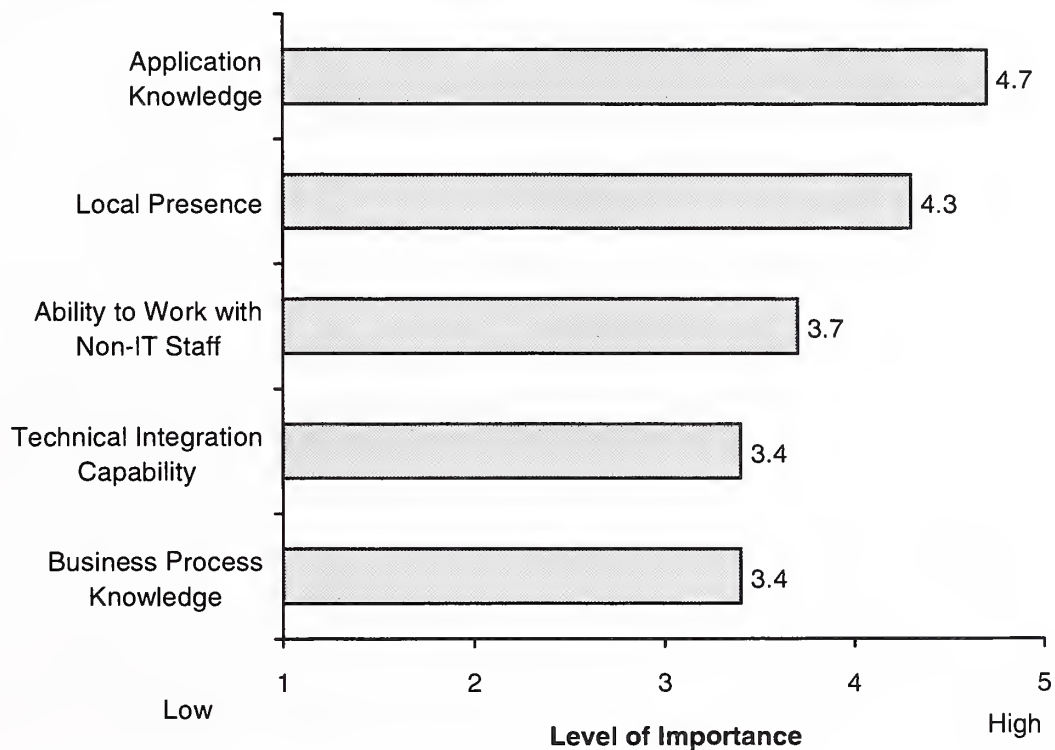
The CIO and CFO are perceived to be the key decision-makers in enterprise application solution selection, and the same personnel are the key decision-makers in partner selection.

Exhibit V-19 lists the most important criteria in selection of the external enterprise application services vendor.

Services vendors are chosen primarily on their knowledge of the application and the chosen enterprise application solution. However, despite the increasing adoption of enterprise application solutions across a wide range of subsidiaries and geographies, buyers still prefer their services vendor to have a local presence.

Exhibit V-19

### Services Vendor Selection Criteria: High Importance



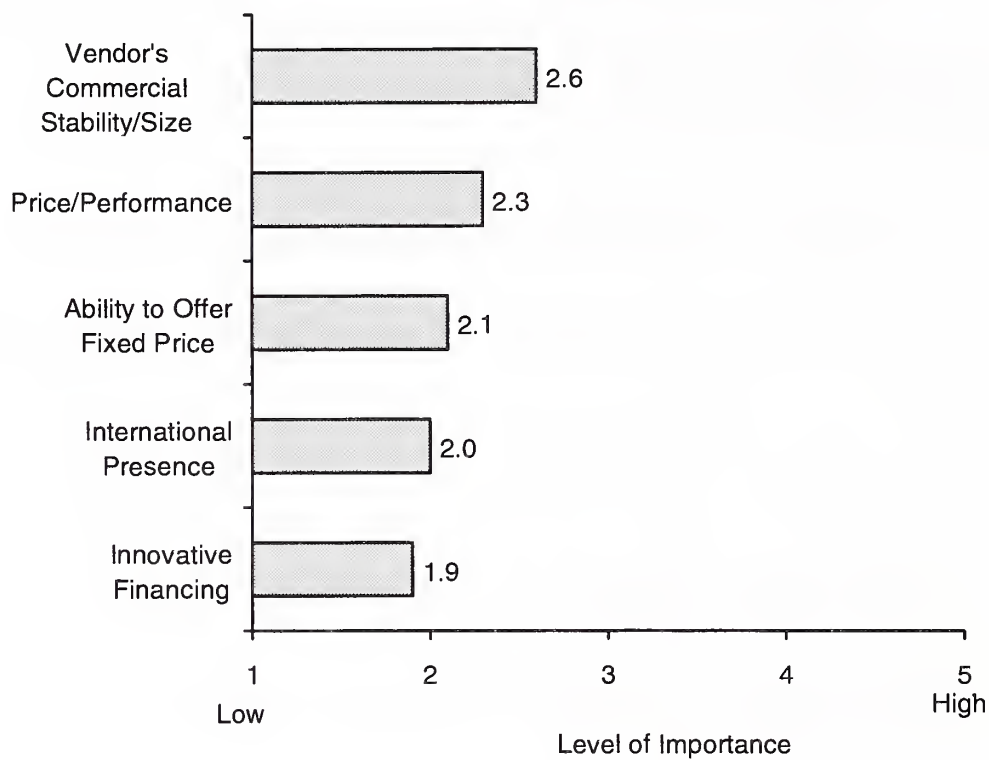
Sample of 10 IT Directors. Standard Error = 0.3

Source: INPUT

Exhibit V-20 lists the less important criteria in selection of the external enterprise application services vendor.

Exhibit V-20

**Services Vendor Selection Criteria: Low Importance**



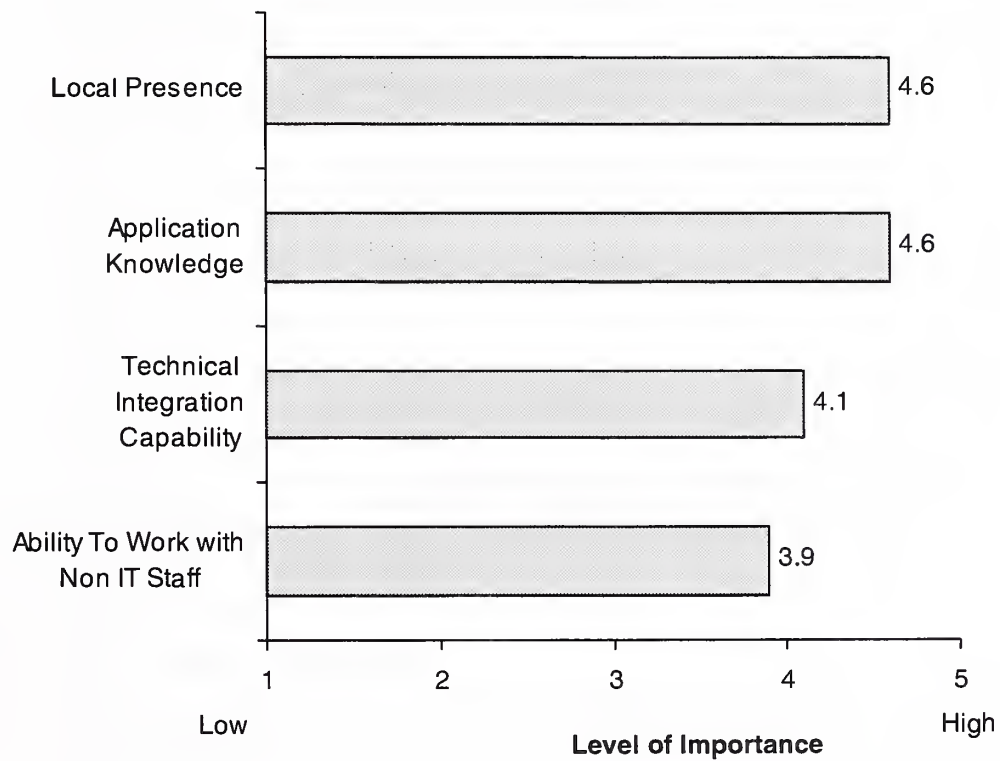
Sample of 10 IT Directors. Standard Error = 0.3

Source: INPUT

In the future, the services vendor's technical integration capability will be increasingly important.

Exhibit V-21 lists the most important selection criteria to potential buyers when choosing an external services vendor.

Exhibit V-21



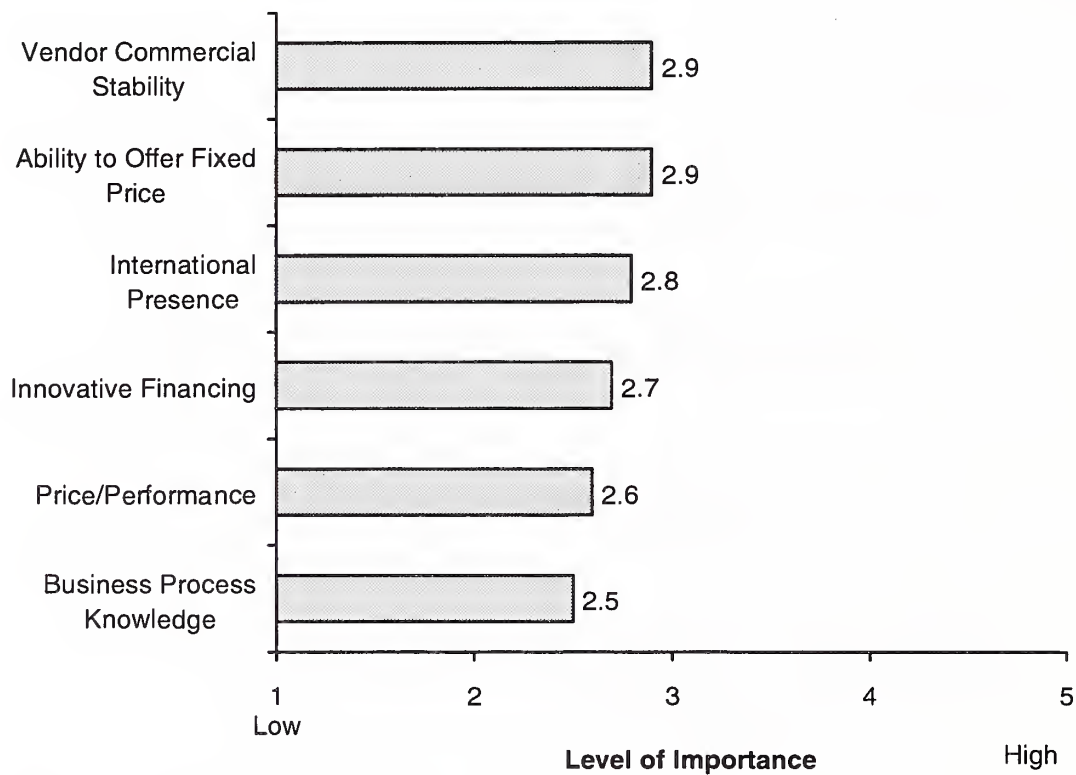
Sample of 17 IT Directors. Standard Error = 0.2

Source: INPUT

Exhibit V-22 lists the less important selection criteria to potential buyers when choosing an external services vendor.

Exhibit V-22

### Services Vendor Selection Criteria: Low Importance



Sample of 17 IT Directors. Standard Error = 0.2

Source: INPUT



Exhibit V-23 lists the perceived suitability of each of a number of major services organizations to assist potential buyers with enterprise application projects.

Exhibit V-23

### Perceived Suitability of Services Vendors

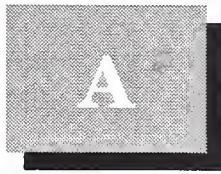
Vendor	Rating	Number of mentions
Deloitte Touche	3.1	10
Andersen Consulting	3.6	9
HP	4.2	9
CSC	4.3	8
IBM	4.0	8
Cap Gemini America	2.8	6
Coopers & Lybrand	3.3	6
Digital	4.0	6
Unisys	4.2	6
Ernst & Young	3.4	5
Plaut	4.2	5
NCR	3.3	4
PA	3.3	4
DA Consulting	2.3	3
EDS	4.0	3
Sun Microsystems	4.3	3

Source: INPUT

The major equipment vendors are perceived to have a high level of capability in this area, Hewlett-Packard and IBM being particularly well-positioned in terms of both the level of awareness and perceived capability.

The management consultancies are typically less well regarded in terms of their capability.

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# Appendix A

## A

### USAGE OF ENTERPRISE APPLICATION SOFTWARE

1. What Enterprise Application or ERP software do you have installed in your organization? Do you use a single product from one vendor or multiple highly integrated products? How satisfied are you with each of these products? Please rate on a scale of 1-5 where 1= not at all satisfied and 5 = very satisfied.

Product name	Vendor	Satisfaction (1-5)

Single product/Multiple products    S/M

2. For your enterprise application, can you indicate which product you have used for each function? *(Multiple responses allowed)* Can you also indicate your satisfaction with each area and the number of users typically using a particular module?

<b>Function</b>	<b>Product/Vendor Used</b>	<b>Module Implemented (Y/N)</b>	<b>Satisfaction (1-5)</b>	<b>Number of Users</b>
<b>All functions</b>				
<b>Financials</b>				
<b>Payroll</b>				
<b>Human Resources</b>				
<b>Sales &amp; Marketing</b>				
<b>Supply chain management</b>				
<b>Production management</b>				
<b>Industry-specific module (please detail)</b>				
<b>Industry-specific module (please detail)</b>				
<b>Industry-specific module (please detail)</b>				

3. Can you please provide some basic details concerning the IT infrastructure supporting your main Enterprise Applications or ERP products? (*Multiple ticks allowed*)

Hardware	<i>Please define</i>	Digital	HP	IBM	SNI	Sun	Sequent	Other (Details)
Operating System	NT	OSF/1	HP-UX	AIX	SINEX	Solaris	DB2	Other (Details)
Database	Oracle	Informix	SQL Server	Other (Detail)				

- 4a. Do you intend implementing enterprise applications or ERP solutions within two years?

Yes \_\_\_\_\_ Any particular software vendor(s) selected? \_\_\_\_\_

No \_\_\_\_\_ **IF NO, USE NON-BUYER QUESTIONNAIRE**

- 4b. If so, why?

- 4c. How important are each of the following reasons? Please rate on a scale of 1-5 where 1 = not at all important and 5= very important.

Year 2000 problems \_\_\_\_\_

Change of IT architecture \_\_\_\_\_

Changing business need \_\_\_\_\_

Obsolescence of existing software \_\_\_\_\_

Introduction of EMU \_\_\_\_\_

**B. BUYING PROCESS**

- 5a. In regard to the following suppliers of enterprise-wide business application software can you detail (a) whether you have heard of them (b) whether you would consider using them and (c) how you would rate them using a scale of 1 - 5 where 5 = Highest Regard. *(Multiple ticks allowed)*

**Interviewer Please Note - Rotate**

	Heard of as Supplier of Enterprise-Wide Business Applications Software	Would Consider Using	View of Vendor as Supplier of Enterprise-Wide Business Applications Software
	<i>Yes/No</i>		<i>1-5</i>
BAAN			
Computer Associates			
D&B/Geac			
IBM			
Lawson			
JD Edwards			
Qad			
Oracle Applications			
Peoplesoft			
SAP			
SSA			
Systems Union			
Walker			
Other (Please detail)			



5b. What criteria will you use to select Enterprise Applications or ERP solutions?

Please specify: \_\_\_\_\_

5c. How important are each of the following selection criteria? Please rate on a scale of 1 to 5 where 1= not at all important and 5 = very important.

Overall fit to defined requirements \_\_\_\_\_

Best of breed functionality in a particular function \_\_\_\_\_

Which function(s) \_\_\_\_\_

Product flexibility \_\_\_\_\_

Ease of implementation \_\_\_\_\_

Speed of implementation \_\_\_\_\_

Total cost of ownership \_\_\_\_\_

Value for money \_\_\_\_\_

Scope of functionality \_\_\_\_\_

Ease of use \_\_\_\_\_

Reporting capability \_\_\_\_\_

Ease of integration with other products \_\_\_\_\_

Platform portability \_\_\_\_\_

5d. which solution do you currently favor? Why? \_\_\_\_\_

6. do you intend to use an external IT service vendor to assist you in implementing an enterprise application(s) or ERP solution(s)?

Yes \_\_\_\_\_

No \_\_\_\_\_

Currently Considering \_\_\_\_\_

**IF NO, GO TO QUESTION 10**

7. f "yes" or "currently considering" what type of external service vendor will you use ?

System Integrator (e.g. IBM, A/C) \_\_\_\_\_

Outsourcer (e.g. EDS, CSC) \_\_\_\_\_

Professional Services Firm (eg., ) \_\_\_\_\_

Management Consultancy (e.g. C&L, PW, Deloitte Touche) \_\_\_\_\_

Other (*please describe*) \_\_\_\_\_

8. Would you consider implementing a set of "best of breed" applications rather than a single Enterprise Application product through such a vendor? Yes/No

9. In enterprise application or ERP implementation projects, what form of contract pricing does your organization favor ?

Fixed price \_\_\_\_\_

Time & materials \_\_\_\_\_

Value based \_\_\_\_\_

Other (*please describe*) \_\_\_\_\_

10. If you are considering implementing an enterprise application, can you indicate whether this system would comprise a range of products, or a single integrated product?

Single/multiple products

Which of the following functions do you want to implement? (*Multiple ticks allowed*)

**All functions** \_\_\_\_\_

**Financials** \_\_\_\_\_

**Supply chain management** \_\_\_\_\_

**Payroll** \_\_\_\_\_

**Human Resources** \_\_\_\_\_

**Manufacturing** \_\_\_\_\_

**Sales & Marketing** \_\_\_\_\_

**Industry-specific function (please specify)** \_\_\_\_\_

**Industry-specific function (please specify)** \_\_\_\_\_

**Other**      *(Please define)* \_\_\_\_\_

**Don't Know** \_\_\_\_\_

**Comments:** \_\_\_\_\_

- 11a. Can you indicate whether you would consider using any of the following equipment manufacturers' technology as the main platform for ERP or other enterprise application solutions. *(Multiple ticks allowed)* To what extent would you favor equipment from each of these vendors in any enterprise application implementation?

Equipment Manufacturer	Consider Using	Extent Favored (1-5)
Amdahl		
Data General		
Digital		
Hewlett Packard		
Hitachi Data Systems		
IBM		
NCR		
Pyramid		
Sequent		
Siemens Nixdorf		
Sun Microsystems		

Stratus		
Unisys		
Other ( <i>Please Detail</i> )		
Don't Know		

- 11b. Can you indicate whether you would consider using any of the following operating systems as the main platform for ERP or other enterprise application solutions. (*Multiple ticks allowed*) To what extent would you favor each of the following operating systems in any enterprise application implementation?

Operating System	Consider Using	Extent Favoured (1-5)
MVS		
Unix		
NT		
OSF/1		
HP-UX		
AIX		
SINEX		
Solaris		
Other ( <i>Please Detail</i> )		
Don't Know		

- 11c. Can you indicate whether you would consider using any of the following database technology as the main platform for ERP or other enterprise application solutions. *(Multiple ticks allowed)* To what extent would you favor each of these databases in any enterprise application implementation?

Database	Consider Using	Extent Favoured (1-5)
Oracle		
Informix		
SQL Server		
Other <i>(Please Detail)</i>		
Don't Know		

12. Can you indicate how important the following benefits would be for you in enterprise application or ERP projects? *(Please rate on a scale of 1 - 5 where 1 = low importance and 5 = high importance)*

### 1Interviewer - PLEASE ROTATE

Benefit	Importance
Tactical reengineering e.g. process change/workflow improvement etc.	
Gaining/retaining competitive edge	
Reducing business costs	
Improving responsiveness to customer demand	
Accessing new revenue channels	
Creating business barriers to competition	
Strategic reengineering of the business	
Addressing Year 2000 and EMU issues/problems	



- 13a. To what extent would you favor each of the following implementation approaches in any ERP or other enterprise application project ?

Big Bang \_\_\_\_\_

Phased By Module or product \_\_\_\_\_

Pilot/Roll Out \_\_\_\_\_

Other (*Please Detail*) \_\_\_\_\_

- 13b. What level of business process change do you expect will accompany your enterprise application implementation? Please rate on a scale of 1-5 where 1= low change and 5= extensive change.
- \_\_\_\_\_

- 13c. Why?
- \_\_\_\_\_

- 13d. Can you indicate how long you would expect an ERP or other enterprise application implementation to take for your unit and company total?

	<u>UNIT</u>	<u>COMPANY</u>
Under 3 months	_____	_____
Between Three and Six Months	_____	_____
Between Six and Nine Months	_____	_____
Between Nine Months and a Year	_____	_____
Between One and Two Years	_____	_____
Over Two Years	_____	_____

14. If you were intending to purchase an enterprise application solution would you Approach the software product vendor directly ? \_\_\_\_\_

Use a third party ? \_\_\_\_\_

Comments: \_\_\_\_\_



15. Can you indicate how capable or suitable you consider the following services organizations for assisting your organization with ERP or enterprise application projects? *(Please rate on a scale of 1-5 where 1 = not capable / not suitable perception and 5 = extremely capable / suitable) 0= no perception.*

Vendor	Perception of Capability
Andersen Consulting	
Cap Gemini America	
Deloitte ToucheG	
Coopers & Lybrand	
CSC	
Data General	
Digital	
DA Consulting	
EDS	
Ernst & Young	
HP	

Vendor	Perception of Capability
IBM	
KPMG	
Plaut	
NCR	
Origin	
PA	
PW	
Sun Microsystems	
Unisys	
Other (Please Detail)	

16. If you were intending to implement enterprise applications or ERP solutions with the assistance of an external IT services supplier how important would it be that the IT services provider was an implementation partner of the software product vendor?  
(Please rate on a scale of 1-5 where 1 = very unimportant and 5 = very important)
17. If you were choosing an external services vendor, how important would the following criteria be in your selection ? (Please rate on a scale of 1 - 5 where 5 = very important)

**Interviewer note: please rotate**

Price/performance \_\_\_\_\_

Vendor's commercial stability/size \_\_\_\_\_

Technical integration capability \_\_\_\_\_

Application knowledge \_\_\_\_\_

Business Process knowledge \_\_\_\_\_

Ability to work with non-IT staff \_\_\_\_\_

Ability to offer fixed price \_\_\_\_\_

Innovative financing (shared risk etc.) \_\_\_\_\_

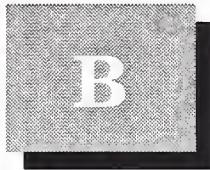
Local presence \_\_\_\_\_

International presence \_\_\_\_\_

Other (*Please describe and rate*) \_\_\_\_\_

**Thank you very much for your time and assistance with this questionnaire**

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## Appendix B

### A

#### USAGE OF ENTERPRISE APPLICATION SOFTWARE

- 1 What Enterprise Application or ERP software do you have installed in your organization? Do you use a single product from one vendor or multiple highly integrated products? How satisfied are you with each of these products? Please rate on a scale of 1-5 where 1= not at all satisfied and 5 = very satisfied.

Product name	Vendor	Satisfaction (1-5)

Single product/Multiple products      S/M

Vendor/product name of main product: \_\_\_\_\_

2. For your enterprise application, can you indicate which product you have used for each function? (*Multiple responses allowed*) Can you also indicate your satisfaction with each area and the number of users typically using a particular module?

---



---

Function	Product/Vendor Used	Module Implemented (Y/N)	Satisfaction (1-5)	Number of Users
All functions				
Financials				
Payroll				
Human Resources				
Sales & Marketing				
Supply chain Management				
Production management				
Industry-specific modules (Please detail)				
Industry-specific modules (Please detail)				
Industry-specific modules (Please detail)				



3. Can you please provide some basic details concerning the IT infrastructure supporting your main Enterprise Applications or ERP products? *(Multiple ticks allowed)*

Hardware	<i>Please define</i>	Digital	HP	IBM	SNI	Sun	Sequent	Other (Details)
Operating System	NT	OSF/1	HP-UX	AIX	SINEX	Solaris	DB2	Other (Details)
Database	Oracle	Informix	SQL Server	Other (Detail)				

- 4a. Do you intend implementing enterprise applications or ERP solutions within two years?

Yes \_\_\_\_\_ Any particular software vendor(s) selected? \_\_\_\_\_

No **IF NO, GO TO QUESTION 5**

- 4b. If so, why? \_\_\_\_\_

- 4c. How important are each of the following reasons? Please rate on a scale of 1-5 where 1 = not at all important and 5= very important.

Year 2000 problems \_\_\_\_\_

Change of IT architecture \_\_\_\_\_

Changing business need \_\_\_\_\_

Obsolescence of existing software \_\_\_\_\_

Introduction of EMU \_\_\_\_\_

**GO TO BUYERS QUESTIONNAIRE**

**B.****BUYING PROCESS****B.1 Product Awareness**

5a How did you originally find out about your main Enterprise Application or ERP product?

Competitor \_\_\_\_\_

Trade press \_\_\_\_\_

Services partner \_\_\_\_\_

Management consultancy \_\_\_\_\_

Specialist business consultancy \_\_\_\_\_

Hardware vendor \_\_\_\_\_

Industry Analysts \_\_\_\_\_

Other (please define) \_\_\_\_\_

5b. Is your organization part of a Group that already uses this Enterprise Application or ERP product? What is the business relationship between your organization and these other units? e.g. parent, sister organization etc. *(Please define)*

Group subsidiary \_\_\_\_\_

Group parent \_\_\_\_\_

Other (please define) \_\_\_\_\_

5c Who drove the decision to choose your enterprise application or ERP product?

CEO \_\_\_\_\_

CFO \_\_\_\_\_

CIO \_\_\_\_\_

Functional manager (please define) \_\_\_\_\_

Other (please define) \_\_\_\_\_

6. In purchasing your main Enterprise Application or ERP Solution did you

Approach the software vendor directly ? \_\_\_\_\_

Via an implementation partner ? \_\_\_\_\_

Use an outsourcer? \_\_\_\_\_

Consultant software product selection process? \_\_\_\_\_

Other - *please specify*: \_\_\_\_\_

\_\_\_\_\_

## B.2 PRODUCT - SELECTION

- 7a. When making the decision to implement your chosen Enterprise Application or ERP solution what other company's products did you consider, please identify product considered ? (*Multiple choices allowed*)

Interviewer PLEASE ROTATE when needing to read out list

Baan \_\_\_\_\_

Computer Associates \_\_\_\_\_

Dun & Bradstreet/GEAC \_\_\_\_\_

Industrie Mathematik \_\_\_\_\_

JBA \_\_\_\_\_

JD Edwards \_\_\_\_\_

Manugistics \_\_\_\_\_

Oracle Applications \_\_\_\_\_

Peoplesoft \_\_\_\_\_

SAP \_\_\_\_\_

SSA \_\_\_\_\_

Systems Union \_\_\_\_\_

Walker \_\_\_\_\_

Other - *please specify*: \_\_\_\_\_  
\_\_\_\_\_

7b. Why did you select your current Enterprise Application or ERP solution?

*Please specify*: \_\_\_\_\_

7c. How important were each of the following selection criteria? Please rate on a scale of 1 to 5 where 1= not at all important and 5 = very important.

Overall fit to defined requirements \_\_\_\_\_

Best of breed functionality in a particular function \_\_\_\_\_

Which function(s) \_\_\_\_\_

Product flexibility \_\_\_\_\_

Ease of implementation \_\_\_\_\_

Speed of implementation \_\_\_\_\_

Total cost of ownership \_\_\_\_\_

Value for money \_\_\_\_\_

Scope of functionality \_\_\_\_\_

Ease of use \_\_\_\_\_

Reporting capability \_\_\_\_\_

Ease of integration with other products \_\_\_\_\_

Platform portability \_\_\_\_\_

**B.3 SERVICES - SELECTION****Section C - Questions Regarding Enterprise Application Implementation Services Assistance**

8. Do/Did you use external services to support your Enterprise Application or ERP implementation?

Yes/No

***If the Answer is NO USE of Vendors- Go To Q14***

- 9a. In your selection process how important was it that the services provider was an implementation partner of your software vendor? *(Please rate on a scale of 1-5 where 1 = very unimportant and 5 = very important)*
- 9b. How did you find out about your Enterprise Application or ERP services partner? *(Multiple ticks allowed)*

**Interviewer note: please rotate**

Via software product vendor \_\_\_\_\_

Word of mouth \_\_\_\_\_

Media/Advertising \_\_\_\_\_

Past service relationship \_\_\_\_\_

Directly approached by services company \_\_\_\_\_

Trade shows/conferences \_\_\_\_\_

Other (Please define) \_\_\_\_\_

- 9c. Were you aware of your software product vendor's Certification Program?

Yes/No

If yes, how important for partner selection was this certification, please rate on a scale of 1 to 5 where 1= not aware/not important at all to 5 very aware/very important?

Important:

10. Which external services provider was involved in each of the following phases?

Decision phase.....(Name)

Planning phase.....(Name)

Implementation phase.....(Name)

Outsourcing/operational phase.....(Name)

11. Who made the decision to select each of these partners?

Executive Yes/No

IT manager Yes/No

Finance dept Yes/No

Operational department head Yes/No

12. Can you please rate the importance of the following criteria in your initial selection of the external Enterprise Application or ERP services vendor ? *(Please rate on a scale of 1 - 5 where 1 = unimportant and 5 = very important)*

**Interviewer note: please rotate**

Price/performance \_\_\_\_\_

Vendor's commercial stability/size \_\_\_\_\_

Technical integration capability \_\_\_\_\_

Application knowledge \_\_\_\_\_

Business Process knowledge \_\_\_\_\_

Ability to work with non-IT staff \_\_\_\_\_

Ability to offer fixed price \_\_\_\_\_

Innovative financing (shared risk etc.) \_\_\_\_\_

Local presence \_\_\_\_\_

International presence \_\_\_\_\_

Other *(Please describe and rate)* \_\_\_\_\_



- 13a. Which organizations did you consider to provide Enterprise Application or ERP services to your organization? \_\_\_\_\_

Vendor
1.
2.
3.
4.
5.

### C.1 Products

14. What do you consider the three main strengths and weaknesses of your main Enterprise Application or ERP solution?

Vendor/Product name: \_\_\_\_\_

	Strength	Weakness
1		
2		
3		

15. How satisfied are you with the following elements of the main Enterprise Application or ERP solution you have implemented ? (Please rate on a scale of 1-5 where 1 = extremely dissatisfied and 5 = extremely satisfied) *Answer relevant sections*

Vendor/Product name: \_\_\_\_\_

**Interviewer note: Please Rotate**

	Satisfaction
Overall fit to defined requirements	
Best of breed functionality in key business areas	
Product flexibility	
Ease of implementation	
Speed of implementation	
Total cost of ownership	
Value for money	
Scope of functionality	
Ease of use	
Reporting capability	
Ease of integration with other products	
Platform portability	
Overall	

16. How would you like to see your current enterprise application or ERP solution improved?
-

## C.2 Service Providers

17. How important and how satisfactory were the external provision of each of the following aspects of the enterprise application implementation and support?

Characteristic	Importance	Satisfaction
Business process reengineering		
Change management		
Meeting cost/price calculations		
Meeting deadlines		
Availability and co-operation of vendor personnel		
Training/Skills transfer		
Breadth and depth of vendor skills		
Industry sector/business knowledge		
On-going support		
Overall		

### C.3 Benefits

18. Can you please rate the level of importance of the following benefits from your Enterprise Application or ERP solution and the extent to which these have been met ? (Please rate both on a scale of 1 - 5 where 1 = not important at all/low level of achievement and 5 = very important/objectives completely met)?

**Interviewer - PLEASE ROTATE**

	Importance Rating	Satisfaction Rating
Tactical reengineering e.g. process change/workflow improvement etc.		
Gaining/retaining competitive edge		
Reducing business costs		
Accessing new revenue channels		
Creating business barriers to competition		
Strategic reengineering of the business		
Addressing Year 2000 issues/problems		
Improving responsiveness to customer demand		
Improved interaction with suppliers		
Overall business benefit		
Other (s) <i>(Please define)</i>		



**D. IMPLEMENTATION AND COST ISSUES****D.1 Implementation**

19a. What implementation approach did your organisation adopt in your Enterprise Application or ERP project ?

Big Bang \_\_\_\_\_

Phased By Modules \_\_\_\_\_

Pilot/Roll Out \_\_\_\_\_

Other (Please Detail) \_\_\_\_\_

19b. What level of business process change accompanied your enterprise application implementation? Please rate on a scale of 1-5 where 1= low change and 5= extensive change. \_\_\_\_\_

20. Did your services firm utilise any of the following; if they did, how satisfied were you with them ? (Please score satisfaction on a scale of 1 - 5 where 1 = very dissatisfied and 5 = very satisfied)

	Yes/No	Satisfaction Rating
Business Modelling Tools		
Industry specific Templates		

21a. What contractual approach did you use for your enterprise application implementation project and how satisfied have you been with this approach ? (Tick in appropriate Contractual Approach Box and then rate on a scale of 1 - 5 where 1 = extremely dissatisfied and 5 = very satisfied))

	Contractual Approach	Satisfaction
Fixed Price for Services		
Time and Material		
Value-based		
Other (Please explain)		

**D.2 COST**

- 22a. Can you please detail the approximate total cost of your enterprise application or ERP implementation in terms of the following categories?

**PLEASE AIM TO OBTAIN HARD NUMBERS - %'S ARE A FALLBACK POSITION**

5 Implementation Categories	Project Cost (\$,000s or %) (Please state units)
Software Licence	
Hardware	
Direct Consulting from software product vendor	
Direct Consulting from other sources	
Business Process Reengineering Services	
Systems Tailoring/Enhancement and Implementation Services	
Education & Training	
Other <i>(Please Detail)</i>	
Total	

- 22b. How many people (full-time equivalent) are or were involved in implementation ?



**D.3 TIMESCALES**

- 23a. Can you indicate how long your enterprise application implementation period was or is planned to be for your unit and company total?

	<u>Unit</u>	<u>Company</u>
Under 3 months	_____	_____
Between Three and Six Months	_____	_____
Between Six and Nine Months	_____	_____
Between Nine Months and a Year	_____	_____
Between One and Two Years	_____	_____
Over Two Years	_____	_____

- 23b. How did your implementation compare to plan regarding time and budget? (*check as appropriate*)

	Time	Budget
Under plan		
up to 110% of plan		
111 - 125% of plan		
126 - 150% of plan		
151 - 175% of plan		
176 - 200% of plan		
201% of plan plus.		
Comments		

24. What are your plans over the next two years ?

Complete migration to main Enterprise Application or ERP solution Yes/No

Partial migration to Enterprise Application or ERP solution Yes/No

Extend Enterprise Application or ERP solution to other functional areas Yes/No

Extend functionality through the use of best of breed applications Yes/No

Build up more internal Enterprise Application or ERP solution knowledge Yes/No

Abolish use of Enterprise Application or ERP solution Yes/No

**Thank you very much for your time and assistance**





